

Republic of the Philippines

Department of Transportation and Communication

Republic of the Philippines

**Detailed Design Study Report
of
New Bohol Airport Construction and
Sustainable Environment Protection
Project**

Final Report

Appendix-1: Draft Bid Documents

Document IV: Bill of Quantities

September 2013

Japan International Cooperation Agency (JICA)

Japan Airport Consultants, Inc. (JAC)

Nippon Koei Co., Ltd. (NK)

NJS Consultants Co., Ltd. (NJS)

Joint Venture



Republic of the Philippines
DEPARTMENT OF TRANSPORTATION
AND
COMMUNICATIONS



JAPAN
INTERNATIONAL
COOPERATION
AGENCY

NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT

(Loan No: PH-P256)

DRAFT BID DOCUMENT IV

BILL OF QUANTITIES



August 2013

JICA Design Consultant Joint Venture



JAPAN AIRPORT
CONSULTANTS,
INC.



NIPPON KOEI
CO., LTD.



NJS CONSULTANTS
CO., LTD.

**NEW BOHOL AIRPORT CONSTRUCTION
AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT**

Bill of Quantities

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BOQ of Component-6: Aeronautical Ground Lighting Work

New Bohol Airport Construction Project and Sustainable Environment Protection Project

SUMMARY OF THE WORKS

Item No.	Item	Amount	
		LC(Php)	FC (Jp Yen)
	Summary of the Works		
	Component-1: (G) General requirements		
	Component-2: (C) Civil Works		
	Component-3: (U) Utility Works		
	Component-4: (B) Building Works		
	Component-5: (N) Air Navigation Facilities		
	Component-6: (L) Aeronautical Ground Lighting		
	Subtotal of the Works		
	Provisional Sum	100,000,000.0	200,000,000
	Total to Bid Form		
	Price of Japan Origin		

Component Summary

Item No.	Item	Amount	
		LC(Php)	FC (Jp Yen)
	<p><u>Component-1: General Requirements (G) - Summary</u></p> <p>General Conditions of Contract</p> <p>Section G-1115: Contractor's Facilities</p> <p>Section G-1120 : Employer's and Engineer's Facilities</p> <p>Section G-1130: Environment Management</p> <p>Section G-1165: Contractor's Submission</p> <p>Section G-1170: Daywork</p> <p>Section G-1175: Soil Investigation</p> <p>Section G-1210: Project Equipment</p> <p>Section G-1230: Maintenance Equipment</p> <p style="text-align: right;">Total to Summary of the Works</p>		
	<p><u>Component 2: (C) Civil Work Summary</u></p> <p>Subcomponent 2-1: (C1) Access Road</p> <p>Subcomponent 2-2: (C2) Airport Infrastructure</p> <p style="text-align: right;">Total to Summary of the Works</p>		
	<p><u>Component-3: (U) Utility Works Summary</u></p> <p>Subcomponent 3-1: (U1) Water Supply System</p> <p>Subcomponent 3-2: (U2) Power Supply System</p> <p>Subcomponent 3-3: (U3) Sewage Treatment System</p> <p style="text-align: right;">Total to Summary of the Works</p>		
	<p><u>Component-4: (B) Building Works</u></p> <p>Subcomponent 4-1: (B1) Passenger Terminal Building</p> <p>Subcomponent 4-3: (B3) Control Tower, ATC Operation & Administration Building (ATO)</p> <p>Subcomponent 4-4: (B4) Fire Station and Airport</p>		

New Bohol Airport Construction Project and Sustainable Environment Protection Project

Item No.	Item	Amount	
		LC(Php)	FC (Jp Yen)
	<p>Subcomponent 4-5: Ancillary Buildings (ACB)</p> <p>(B51) Driver's Lounge (DRL)</p> <p>(B52) Car Parks Toilet (CPT)</p> <p>(B53) Guard House (GDH)</p> <p>(B54) Tollbooths (TLB)</p> <p>Subcomponent 4-6: Utility Buildings (ULB)</p> <p>(B61) Water Tank & Pump Houses</p> <p>(B62) Power House (GDH)</p> <p>(B63) STP Control Room (STP)</p> <p>(B63) Material Recover Facility</p> <p>Subcomponent 4-7: Nav aids Buildings (NAV)</p> <p>(B71) LLZ Building (LLZ)</p> <p>(B72) GS Building (GSB)</p> <p>(B73) VOR Building (VOR)</p> <p style="text-align: right;">Total to Summary of the Works</p>		
	<p>Component-5: (N) Air Navigation Facilities</p> <p>Subcomponent 5-1: (N0) General</p> <p>Subcomponent 5-1: (N1) ILS</p> <p>Subcomponent 5-2: (N2) VOR/DME</p> <p>Subcomponent 5-3: (N3) ATS and Telecommunications</p> <p>Subcomponent 5-4: (N4) Meteorological Observation System</p> <p style="text-align: right;">Total to Summary of the Works</p>		
	<p><u>Component-6: (L) Aeronautical Ground Lighting Works</u></p> <p>Subcomponent 6-0: (L0) General</p> <p>Subcomponent 6-1: (L1) Approach Lighting System</p>		

New Bohol Airport Construction Project and Sustainable Environment Protection Project

Item No.	Item	Amount	
		LC(Php)	FC (Jp Yen)
	Subcomponent 6-2: (L2) Precision Approach Path Subcomponent 6-3: (L3) Runway Lighting System Subcomponent 6-4: (L4) Taxiway Lighting System Subcomponent 6-5: (L5) Other Aeronautical Lighting Subcomponent 6-6: (L6) Apron Floodlights Subcomponent 6-7: (L7) Underground Cable Ducts Subcomponent 6-8: (L8) Control and Monitoring System Total to Summary of the Works		

Form JPO: Price List of Japanese Origin Items

Name of Bidder:

Spec	Items	Manufactures	Materials / Equipment	Contractor's Equipment	Overhead (%)	Total (Yen)
			a	b	c	d=a+b+c
Component-1: General Requirements						
<i>Insert the Japanese Origin Products</i>						
<i>(If necessary, insert the lines)</i>						
Component-2: Civil works						
<i>Insert the Japanese Origin Products</i>						
<i>(If necessary, insert the lines)</i>						
Component-3: Utility Works						
<i>Insert the Japanese Origin Products</i>						
<i>(If necessary, insert the lines)</i>						
Component-4: Building Works						
<i>Insert the Japanese Origin Products</i>						
<i>(If necessary, insert the lines)</i>						
Component-5: Air Navigation Facilities						
<i>Insert the Japanese's Origin Products</i>						
<i>(If necessary, insert the lines)</i>						
Total						
(%) of Japanese Origin Contents						
Exchange Rate: as of Base Date under GCC 1.1.3.1			Php= Yen			

Note to Bidders:

- 1) Additional lines may be inserted in each Component as necessary.
- 2) (%) of each item shall be proposed by the Bidder.
- 3) "Overhead" can include the salary and wage of Japanese personnel.

**BILL OF QUANTITIES
OF**

COMPONENT-1:

G: GENERAL REQUIREMENTS

Component-1: General Requirements

Component-1 Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Component-1: General Requirements (G)						
	Component Summary						
	General Conditions of Contract						
	Section G-1115: Contractor's Facilities						
	Section G-1120 : Employer's and Engineer's Facilities						
	Section G-1130: Environment Management						
	Section G-1165: Contractor's Submission						
	Section G-1170: Daywork						
	Section G-1175: Soil Investigation						
	Section G-1210: Project Equipment						
	Section G-1230: Maintenance Equipment						
	Total to Summary of the Works						

**Component-1: General Requirements
Requirements under General Conditions of Contract**

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	(General Conditions of Contract)						
1	Insurance for the Works, Third Party & Contractor's Equipment under Clause 18 of GCC	sum	1				
	Total to Component Summary						

Component-1: General Requirements

Section G-1110: The Site

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section G-1115: Contractor's Facilities						
	Erection and Demolition of Barbed-wire Fence for 3 Barangay Roads						
1	Both sides of Barangay Roads	m	3,200				
2	Other parts, if necessary	m	500				
	Provision of Security Guards						
3	Provision of 2 persons each at 6 entrances of Barangay Road for a period of 12 months	month	144				
	Total to Component Summary						

Component-1: General Requirements

Section G-1120: Employer's & Engineer's Facilities

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section G-1120 : Employer's and Engineer's Facilities</u>							
<u>Offices for Employer and Engineer</u>							
1	Project Sign Board	nos	4				
2	Temporary Engineer's Office at Tagbilaran city	sum	1				
3	Site Offices including utility works and all associated equipment furnishing and facilities including removal cost	m ²	410				
4	Air-conditioning and ventilation (5 kw)	nos	17				
5	Portable fire extinguishers (ABC 2kg)	nos	6				
6	Bookshelves with glass doors and base skirt (width: 90cm; height 2.0m, depth 40cm, 6 trays) for meeting room	nos	10				
7	Bookshelves with base skirt (width: 90cm; height 2.0m, depth 40cm, 6 trays) for common use	nos	20				
8	Bookshelves with base skirt (width: 90cm; height 1.0m, depth 40cm, 3 trays) for common use	nos	10				
9	Metal Filing Cabinet with door and key lock for DOTC representative and Consultant's Manager (width 1.2 m, height 1.2m, depth 40cm)	nos	2				
10	Filing Cabinet (width: 90cm, height: 2m, depth 60cm) with door and key lock for Storage	nos	10				
11	Kitchen set with cooking heater, refrigerator, hot water kettle, microwave range, 30 sets of dishes, knives, spoons and forks, 60 sets of tea cups, tea spoon and glasses for the office and laboratory	sum	1				
12	Meeting table (approx. 1.8m x 3 m) for meeting room	nos	2				
13	Chairs with arm rests for meeting room	nos	20				
14	Dinning table (approx. 1.8m x 2m)	nos	1				
15	Chairs for dining tables	nos	8				
16	Office desk for DOTC Representative and Consultant's Manager, side drawers and chairs	nos	3				
17	Guest chairs for DOTC Rep. & Consultant's Manager	nos	10				
18	Office desks and chairs with arm rests	nos	42				
19	Tables for drivers lounge	nos	2				
20	Chairs for drivers lounge	nos	12				
21	Pavement around Engineer's office and car parks, side walk and landscaping and planting including removal cost (Asphalt Surface Course = 5cm, Crushed aggregate base course = 23 cm)	m ²	1,730				
22	Car Parks Roofing with posts, frame and lights including removal cost	m ²	350				

Component-1: General Requirements

Section G-1120: Employer's & Engineer's Facilities

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<u>Office Equipment</u>						
23	Local Area Network System including routers for WiFi &	sum	1				
24	Computer for Office Use with accessories	no	25				
25	Computer for AutoCAD with accessories	no	2				
26	Lease: Multi-task Copy Machine with accessories	nth	72				
27	Drawing Plotter	no	1				
28	Network Laser Printer	no	3				
29	PABX, telephone system and 50 handsets	sum	1				
30	Seven (7) external line contract & telephone charge	nth	42				
31	Projector and hanging roll type screen	no	1				
32	Document Shredder	no	2				
33	Potable Water Dispenser	no	4				
34	Refrigerator	no	2				
35	White board with markers (black, blue & red: 1 dozen each)	no	3				
36	Time Recorder with 2000 punching cards	no	2				
	<u>Construction Laboratory</u>						
37	Construction Laboratory including utility works, air-conditioning and removal cost	m ²	220				
38	Air-conditioning (3~5 kw)	nos	6				
39	Bookshelves with glass doors and base skirt (width: 90cm; height 2.0m, depth 40cm, 6 trays) for meeting room	nos	3				
40	Metal rack for tools and equipment (width 90cm, height 1.8m, depth 60cm, 3~4 trays, open type)	nos	4				
41	Office desk for Manager with side drawers and chair	nos	1				
42	Office desk for laboratory and chair	nos	3				
43	Workshop desk (width 1.5m, length 2.5 m) for laboratory	nos	3				
44	Chairs for laboratory	nos	6				
45	Laboratory Test Equipment	sum	1				
	<u>Utility and services for Office and laboratory Buildings</u>						
46	Maintenance of office and laboratory including water supply, power supply, cleaning, waste garbage removal, grass cutting and security services	nth	42				
	<u>Attendance upon the Engineer's Staff</u>						
	<u>During Construction Period</u>						
47	Survey Assistants (3 persons)	nth	90				

Component-1: General Requirements

Section G-1120: Employer's & Engineer's Facilities

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
48	Laboratory Assistants (5 persons)	month	150				
49	Chainman (4 persons)	month	120				
50	Drivers including stand-by drivers (10 drivers)	month	270				
	<u>Attendance upon the Engineer's Staff</u>						
	<u>During Defect Notification Period</u>						
51	Survey Assistants (1 person)	month	12				
52	Laboratory Assistants (1 person)	month	12				
53	Chainman (2 persons)	month	24				
54	Drivers (4 drivers)	month	48				
	Total to Component Summary						

Component-1: General Requirements
Section G-1130: Environment Management

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section G-1130: Environment Management							
Monitoring and Reporting							
1	Water Quality - Seawater	month	42				
2	Water Quality - Ground Water	month	42				
3	Air Quality	month	42				
4	Noise	month	42				
5	Solid Waste	month	42				
Removal of Temporarily Deposited Solid Waste							
6	Removal of Solid Waste temporary deposited in the Site to the designated disposal area	m ³	2,000				
Total to Component Summary							

Component-1: General Requirements

Section G-1165: Contractor's Submission

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section G-1165: Contractor's Submission						
1	As-Built Drawings including binding As-Built Drawings	sum	1				
	Total to Component Summary						

DAYWORK SCHEDULE

Section G-1170: Daywork

Item No.	Item	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<p><u>Section G-1170: Daywork</u></p> <p style="text-align: center;"><u>Summary</u></p> <p><u>Daywork - Labour</u></p> <p><u>Daywork - Materials</u></p> <p><u>Daywork -Plant & Equipment</u></p> <p style="text-align: right;"><u>Total to Component Summary</u></p>							
<u>(Daywork - Labour)</u>							
1	Foreman	hour	500				
2	Skilled labour	hour	1,000				
3	Unskilled Labour	hour	2,000				
4	Drivers of trucks	hour	200				
5	Operators of equipment	hour	900				
			Net Price				
			Percentage to be entered by the Bidder	%			
			Total to Work Summary				
<u>(Daywork - Materials)</u>							
1	Portland Cement	kg	500				
2	Reinforcement bar	kg	200				
3	Fine aggregate for concrete	m ³	200				
4	Coarse aggregate for concrete	m ³	200				
5	Asphalt Mixture for Surface Course	m ³	200				
6	Portland Concrete Mixture (240 kg/cm2)	m ³	200				
7	300mm dia RCPC	m	100				
			Net Price				
			Percentage to be entered by the Bidder	%			
			Total to Work Summary				
<u>(Daywork - Plant & Equipment)</u>							
1	Wheel Loader (1.8 m3)	hour	100				
2	Bulldozer (D9 Class)	hour	100				
3	Bulldozer (D7 Class)	hour	100				
4	Dump Tuck	hour	100				
5	Water Truck	hour	100				

DAYWORK SCHEDULE

Section G-1170: Daywork

Item No.	Item	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
6	Hydraulic Breaker	hour	100				
7	Motor Grader (200 HP)	hour	100				
8	Tire Roller (25T)	hour	100				
9	Vibratory Roller (10T)	hour	100				
10	Tandem Roller (15.5T)	hour	100				
11	Asphalt Finisher	hour	50				
12	Asphalt Milling Machine	hour	50				
	Net Price						
	Percentage to be entered by the Bidder	%					
	Total to Work Summary						

Component-1: General Requirements

Section G-1175: Soil Investigation for Cavity Detection

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section G-1175: Soil Investigation for Cavity Detection)							
Boring with SPT including laboratory tests and reporting							
1	2-m deep Boreholes at airside (runway and taxiway)	No.	124				
2	5-m boreholes at PTB	No.	100				
3	5-m boreholes at Control Tower/ Administration Building	No.	31				
Total to Component Summary							

Component-1: General Requirements

Section G-1210: Project Equipment

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section G-1210 : Project Equipment							
<u>Provide temporary hired vehicles; (Vehicle Month - vm)</u>							
1	Rough Terrain Vehicles (3 vehicles)	vm	10				
<u>Provide, register and insure the following Vehicles:</u>							
2	Type-I: Sedan	no	1				
3	Type- II: Rough Terrain	no	7				
4	Type-III: Micro Bus	no	1				
5	Type-IV: Motorcycle	no	9				
<u>Maintain, repair, provide fuel lubricants replacement tires and other parts - (per month of Vehicle use -vm):</u>							
6	Type-I: Sedan (monthly average mileage: 3000 km)	vm	39				
7	Type- II: Rough Terrain (monthly average mileage: 3500km)	vm	273				
8	Type-III: Micro Bus (monthly average mileage: 3600km)	vm	39				
9	Type-IV: Motorcycle (monthly average mileage: 3600km)	vm	351				
<u>Refurbish and repair vehicles and hand over to Employer:</u>							
10	Type-I: Sedan	no	1				
11	Type- II: Rough Terrain	no	7				
12	Type-III: Micro Bus	no	2				
13	Type-IV: Motorcycle	no	7				
<u>Provide Survey Equipment, including repair and regular recalibration:</u>							
14	Survey Equipment	sum	1				
Total to Component Summary							

Component-1: General Requirements
Section G-1230: Maintenance Equipment

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section G-1230: Maintenance Equipment							
1	Shovel Tractor with Backhoe (0.25 m ³)	No.	1				
2	Road Sweeper	No.	1				
3	Dump Truck (2 t)	No.	1				
4	Rotary Mower	No.	4				
5	Water Sprinkler Truck (4 m ³)	No.	1				
6	Hand Type Mower	No.	4				
7	Aerial work platform, battery operated, to reach vertically 12m and horizontally 6 m	No.	1				
8	Aerial work platform battery operated, to reach vertically 8 m	No.	1				
9	Pressure Washer	No.	1				
Total to Component Summary							

BILL OF QUANTITIES
OF
COMPONENT-2:
C: CIVIL WORKS

BILL OF QUANTITIES
OF
SUBCOMPONENT-2-C1:
ACCESS ROAD

Subcomponent-2-1: (C1) Access Road

Subcomponent-2-1 Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p><u>Subcomponent-2-1: (C1) Access Road Summary</u></p> <p>Subcomponent Summary</p> <p>Section C1-2100 Series : Earthworks</p> <p>Section C1-2200 Series : Pavement Works</p> <p>Section C1-2300 Series : Drainage System</p> <p>Section C1-2400 Series : Miscellaneous</p> <p>Section C1-2500 Series : Landscaping</p> <p>Section C1-3110 : Water Supply Pipe Line</p> <p>Section C1-3290 : Road and Car Park Lighting</p> <p>Total to Component-2: Civil Work Summary</p>						

Subcomponent-2-1: (C1) Access Road
Section 2100 Series: Earthworks

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<u>Section C1-2100 Series :Earthworks</u>						
	<u>Section C1-2110 : Clearing and Grubbing</u>						
1	Clearing and grubbing	m ²	4,640				
2	Tree Removal	No.	110				
	<u>Section C1-2120 : Topsoil Removal</u>						
3	Topsoil removal and storage	m ³	5,000				
	<u>Section C1-2130 : Excavation</u>						
4	Common Excavation	m ³	38,750				
5	Rock Excavation	m ³	5,000				
	<u>Section C1-2140 : Embankment</u>						
6	Embankment with excavated materials	m ³	15,810				
	<u>Section C1-2150 : Subgrade Preparation</u>						
7	Grading and compaction of the top 150-mm thick subgrade to 95% of Maximum Dry Density	m ²	51,700				
	Total to Subcomponent 2-1 Summary						

Subcomponent-2-1: (C1) Access Road
Section 2200 Series: Pavement Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section C1-2200 Series: Pavement Works						
	7-m wide Access Road (2 Lanes in each direction)		42,380 m²				
	Section C1-2210: Granular Subbase Course						
1	Delivery and stockpile of locally-available coarse materials for mixing with excavated materials; assumed at 20% of subbase work volume, subject to laboratory test	m ³	1,950				
2	230mm Thick (using materials crashed and blended with excavated material on site)	m ³	9,750				
	Section C1-2220: Graded Crushed Aggregate Base Course						
3	150mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	6,360				
	Section C1-2240: Asphalt Concrete Surface and Binder Course						
4	50mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	4,240				
	Section C1-2250: Prime Coat						
5	Prime Coat	m ²	42,370				
	Section C1-2260: Tack Coat						
6	Tack Coat	m ²	42,370				
	Section C1-2290: Pavement Marking						
7	Thermoplastic reflective paint (white)	m ²	160				
	1.5-m wide Access Road Shoulder		9,090 m²				
	Section C1-2220: Graded Crushed Aggregate Base Course						
8	100mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	909				
	Section C1-2250: Prime Coat						
9	Prime Coat	m ²	9,090				
	Total to Subcomponent 2-1 Summary						

Subcomponent-2-1: (C1) Access Road
Section 2300 Series: Drainage System

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section C1-2300 Series: Drainage System							
CHB-walled U drain							
1	U-drain of 400-mm high CHB wall on 500-mm wide/200-mm thick RC base, complete with reinforcement, with 100-mm high topping concrete, jointing, expansion joint at 30-m intervals, backfilling.	m	5,970				
2	RCP 750 mm diameter	m	175				
3	Inlet Manhole (IMH) 1000 mm x1000 mm	pc	10				
Total to Subcomponent 2-1 Summary							

Subcomponent-2-1: (C1) Access Road
 Section 2400 Series: Miscellaneous Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section C1-2400 Series: Miscellaneous Works						
1	Concrete curbstone (Type-B)	m	6,080				
	Road Signs						
1	RS-2	No.	1				
2	RS-3	No.	1				
3	RS-4	No.	1				
4	RS-5	No.	1				
5	RS-12	No.	1				
6	RS-13	No.	1				
7	RS-15	No.	8				
8	RS-16	No.	5				
9	RS-19	No.	3				
	One Sign Two Post						
10	GS-10	No.	1				
11	GS-11	No.	1				
12	GS-12	No.	1				
	Total to Subcomponent 2-1 Summary						

Subcomponent-2-1: (C1) Access Road
Section 3290: Road and Car Park Lighting

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section C1-3290: Access Road Lighting							
1	Hot Dip Galvanized, Double Arm Lighting Pole, 12m	No.	59				
2	120W LED Type Light, Complete with Lighting Fixture, etc.	No.	118				
Panelboard							
3	ARLP1 & 2, Outdoor Type, Stainless Steel with Photo cell, NEMA4X	No.	2				
Power Accessories							
4	Pole Mounted Transformer 3Ø or 3-1Ø, 15kVA, 13.2kV/230V, 60Hz	Sum	2				
5	Pole Accessories includes; 15kV ACSR Cable, Load Break Switch, Power Fuse, Lightning Arrester, Connections, Pole Line Hardware, etc.	Sum	1				
6	KWH Meter	No.	2				
Wires and Cables							
7	60 mm ² THHN	m	6,800				
8	50 mm ² THHN	m	4,300				
9	30 mm ² THHN	m	2,500				
10	8 mm ² THHN	m	2,000				
11	5.5 mm ² THHN	m	1,500				
12	6 mm ² XLPE	m	200				
13	5.5 mm ² TW	m	1,200				
14	Grounding System	Sum	1				
Civil Works							
15	Pedestal with 3-50 mmØ PVC	No.	1				
16	Pedestal for Panelboard	No.	2				
17	Fence, Gate, Lock and Gravel bed	Sum	2				
18	Handholes for Lights	No.	59				
19	Handholes for Pole Mounted Transformer	No.	4				
20	Foundation/Pedestal for 12m double arm Pole	No.	59				
21	2-50 mm Ø PVC	m	1,900				
22	3-50 mm Ø PVC	m	70				
23	4-50 mm Ø PVC	m	900				
Total to Subcomponent 2-1 Summary							

BILL OF QUANTITIES
OF
SUBCOMPONENT-2-C2:
AIRPORT INFRASTRUCTURE

Subcomponent-2-2: (C2) Airport Infrastructure

Subcomponent-2-2 Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Subcomponent-2-2: (C2) Airport Infrastructure Summary</p> <p>Subcomponent Summary</p> <p>Section C2-2100 Series : Earthworks</p> <p>Section C2-2200 Series : Pavement Works</p> <p>Section C2-2300 Series : Drainage System</p> <p>Section C2-2400 Series : Miscellaneous</p> <p>Section C2-2500 Series : Landscaping</p> <p>Total to Component-2: Civil Work Summary</p>						

Subcomponent-2-2: (C2) Airport Infrastructure
Section C2- 2100 Series: Earthworks

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section C2-2100 Series :Earthworks</u>							
<u>Section C2-2110 : Clearing and Grubbing</u>							
1	Clearing and grubbing of the areas for Project Affected Family (PAF) who may occupy the construction site until after the Commencement Date.	m ²	10,000				
2	Removal of trees in the areas for Project Affected Family (PAF) who may occupy the construction site until after the Commencement Date.	No.	50				
<u>Section C2-2120 : Topsoil Removal</u>							
3	Removal of top humus soils of variable thickness scattered over the entire construction site, and storage thereof for the later use for topsoiling (C2-2510-1)	m ³	20,000				
<u>Section C2-2130 : Excavation</u>							
4	Common Excavation by means of hydraulic excavators, scrapers, bulldozers (D7 to D9 type with or without rippers or similar attachments) of the areas in cut to the depth of design elevation of the finished grade or pavement subgrade or bottom of open drains as the case may be, or the areas in fill to the depth where the natural compaction degree is tested to be not less than 90 % of Maximum Dry Density and unsuitable materials is eliminated prior to subsequent structural embankment	m ³	427,800				
5	Rock Excavation by means of pneumatic drills or jack hammer when existence of rock was observed and consented by the Engineer through the course of Common Excavation.	m ³	50,000				
<u>Section C2-2140 : Embankment</u>							
6	Embankment of the areas in fill with the excavated materials to the design elevation of the finished grade or pavement subgrade with the compaction degree of not less than 90% of Maximum Dry Density (MDD).	m ³	289,300				
7	Delivery of Imported humus soils for the later use for topsoiling (C2-2510-1)	m ³	5,000				
<u>Section C2-2150 : Subgrade Preparation</u>							
8	Grading and compaction of at least the top 150-mm thick subgrade with the compaction degree of not less than 95% of Maximum Dry Density	m ²	317,000				
Total to Subcomponent 2-2 Summary							

Subcomponent-2-2: (C2) Airport Infrastructure
 Section C2- 2200 Series: Pavement Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section C2-2200 Series: Pavement Works						
	<u>Division Summary</u>						
	Division 1: Runway						
	Division 2: Taxiway						
	Division 3: Overrun and Shoulder						
	Division 4: Apron						
	Division 5: GSE Road						
	Division 6: Perimeter Road						
	Division 7: Car Park						
	Division 8: Circulation Road						
	Total to Subcomponent 2-2 Summary						
	<u>Division 1: Runway</u>						
	82,190 m²						
	<u>Section C2-2210: Granular Subbase Course</u>						
1	Delivery and stockpile of locally-available coarse materials for mixing with excavated materials; assumed at 20% of subbase work volume, subject to laboratory test	m ³	7,400				
2	450mm Thick (using materials crashed and blended with excavated material on site)	m ³	37,000				
	<u>Section C2-2220: Graded Crushed Aggregate Base Course</u>						
3	150mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	12,330				
	<u>Section C2-2230: Asphalt Treated Aggregate Base Course</u>						
4	130mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	10,700				
	<u>Section C2-2240: Asphalt Concrete Surface and Binder Course</u>						
5	150mm Thick; in 3 layers (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	12,330				
	<u>Section C2-2250: Prime Coat</u>						
6	Prime Coat	m ²	82,200				
	<u>Section C2-2260: Tack Coat</u>						
7	Tack Coat	m ²	247,000				
	<u>Section C2-2290: Pavement Marking</u>						
8	Thermoplastic reflective paint (white)	m ²	14,670				
9	Cold applied reflective paint (white)	m ²	3,870				
	Total to Division Summary						

Subcomponent-2-2: (C2) Airport Infrastructure

Section C2- 2200 Series: Pavement Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Division 2 : Taxiway and Runway Turn Pad		31,870 m²				
	Section C2-2210: Granular Subbase Course						
1	Delivery and stockpile of locally-available coarse materials for mixing with excavated materials; assumed at 20% of subbase work volume, subject to laboratory test	m ³	2,680				
2	420mm Thick (using materials crashed and blended with excavated material on site)	m ³	13,400				
	Section C2-2220: Graded Crushed Aggregate Base Course						
3	150mm Thick (using materials crashed and blended with basalt, granite or river stone imported from other islands)	m ³	4,790				
	Section C2-2270: Cement Treated Aggregate Base Course						
4	150mm Thick (using materials crashed and blended with basalt, granite or river stone imported from other islands)	m ³	4,790				
	Section C2-2240: Asphalt Concrete Surface and Binder Course						
5	150mm Thick; in 3 layers (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	4,790				
	Section C2-2250: Prime Coat						
7	Prime Coat	m ²	31,870				
	Section C2-2260: Tack Coat						
8	Tack Coat	m ²	63,740				
	Section 22-2290: Pavement Marking						
9	Thermoplastic reflective paint (yellow)	m ²	760				
	Total to Division Summary						
	Division 3 : Overrun and Shoulder		50,020 m²				
	Section C2-2210: Granular Subbase Course						
1	Delivery and stockpile of locally-available coarse materials for mixing with excavated materials; assumed at 20% of subbase work volume, subject to laboratory test	m ³	3,002				
2	300mm Thick (using materials crashed and blended with excavated material on site)	m ³	15,010				
	Section C2-2220: Graded Crushed Aggregate Base Course						
3	150mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	7,510				
	Section C2-2240: Asphalt Concrete Surface and Binder Course						
4	50mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	2,510				
	Section C2-2250: Prime Coat						
5	Prime Coat	m ²	50,020				
	Section C2-2290: Pavement Marking						
6	Thermoplastic reflective paint (yellow)	m ²	350				
	Total to Division Summary						
	Division 4 : Apron		55,585 m²				
	Section C2-2210: Granular Subbase Course						

Subcomponent-2-2: (C2) Airport Infrastructure

Section C2- 2200 Series: Pavement Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
1	Delivery and stockpile of locally-available coarse materials for mixing with excavated materials; assumed at 20% of subbase work volume, subject to laboratory test	m ³	3,892				
2	350mm Thick (using materials crashed and blended with excavated material on site)	m ³	19,460				
Section C2-2270: Cement Treated Aggregate Base Course							
3	150mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	8,350				
Section C2-2280: Portland Cement Concrete Pavement							
4	400mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	22,400				
5	Jointing Steel	pcs	28,714				
6	Isolation Joint	m	202				
7	Cutting and Sealing of Joint	m	21,338				
Dowelled Connection with Flexible Pavement							
8	3-m wide 250mm Thick concrete slab with wire-mesh embedded under taxiway	m	210				
9	2-m wide 300mm Thick concrete slab with wire-mesh embedded under GSE road	m	330				
Section 22-2250: Prime Coat							
10	Prime Coat	m ²	55,600				
Section 22-2290: Pavement Marking							
11	Thermoplastic reflective paint (yellow, white)	m ²	138				
12	Cold applied reflective paint (black)	m ²	120				
13	Cold applied reflective paint (yellow)	m ²	206				
Total to Division Summary							
Division 5 : GSE Road			11,170 m²				
Section C2-2210: Granular Subbase Course							
1	Delivery and stockpile of locally-available coarse materials for mixing with excavated materials; assumed at 20% of subbase work volume, subject to laboratory test	m ³	560				
2	250mm Thick (using materials crashed and blended with excavated material on site)	m ³	2,800				
Section C2-2270: Cement Treated Aggregate Base Course							
3	150mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	1,680				
Section C2-2240: Asphalt Concrete Surface and Binder Course							
4	100mm Thick; in 2 layers (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	1,120				
Section C2-2250: Prime Coat							
5	Prime Coat	m ²	11,170				
Section C2-2260: Tack Coat							
6	Tack Coat	m ²	11,170				
Section C2-2290: Pavement Marking							
7	Thermoplastic reflective paint (white)	m ²	90				

Subcomponent-2-2: (C2) Airport Infrastructure
 Section C2- 2200 Series: Pavement Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Total to Division Summary							
Division 6 : Perimeter Road							
Section C2-2210: Granular Subbase Course							
1	Delivery and stockpile of locally-available coarse materials for mixing with excavated materials; assumed at 20% of subbase work volume, subject to laboratory test	m ³	1,460				
2	150mm Thick (using materials crashed and blended with excavated material on site)	m ³	7,300				
Section C2-2220: Graded Crushed Aggregate Base Course							
3	100mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	4,870				
Section C2-2240: Asphalt Concrete Surface and Binder Course							
4	50mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	2,430				
Section C2-2250: Prime Coat							
5	Prime Coat	m ²	48,610				
Section C2-2290: Pavement Marking							
6	Thermoplastic reflective paint (white)	m ²	573				
Total to Division Summary							
Division 7 : Car Park							
Section C2-2210: Granular Subbase Course							
1	Delivery and stockpile of locally-available coarse materials for mixing with excavated materials; assumed at 20% of subbase work volume, subject to laboratory test	m ³	360				
2	230mm Thick (using materials crashed and blended with excavated material on site)	m ³	1,790				
Section C2-2220: Graded Crushed Aggregate Base Course							
3	150mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	1,170				
Section C2-2240: Asphalt Concrete Surface and Binder Course							
4	50mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	390				
Section C2-2250: Prime Coat							
5	Prime Coat	m ²	7,780				
Section C2-2290: Pavement Marking							
6	Thermoplastic reflective paint (white)	m ²	120				
Total to Division Summary							
Division 8 : Circulation Road							
Section C2-2210: Granular Subbase Course							
1	Delivery and stockpile of locally-available coarse materials for mixing with excavated materials; assumed at 20% of subbase work volume, subject to laboratory test	m ³	1,268				
2	230mm Thick (using materials crashed and blended with excavated material on site)	m ³	6,340				

Subcomponent-2-2: (C2) Airport Infrastructure
 Section C2- 2200 Series: Pavement Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
3	Section C2-2220: Graded Crushed Aggregate Base Course 150mm Thick (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	4,140				
4	Section C2-2240: Asphalt Concrete Surface and Binder Course 100mm Thick; in 2 layers (using materials crashed and blended with basalt, granite or riverstone imported from other islands)	m ³	2,754				
5	Section C2-2250: Prime Coat Prime Coat	m ²	2,754				
6	Section C2-2260: Tack Coat Tack Coat	m ²	2,754				
7	Section C2-2290: Pavement Marking Thermoplastic reflective paint (white)	m ²	575				
Total to Division Summary							

Subcomponent-2-2: (C2) Airport Infrastructure
 Section C2-2300 Series: Drainage System

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section C2-2300 Series: Drainage System						
	Division Summary						
	Division 1 :Airfield and Perimeter Drainage						
	Division 2: Landside Drainage						
	Division 3: Soaking Yard						
	Total to Subcomponent 2-2 Summary						
	Division 1 :Airfield and Perimeter Drainage						
	Riprapped-wall Open Ditch with varied width ; complete with two (2) opposed rows of 250-mm thick boulder wall at vertically 16.7-degree inclined, rest on 50-mm thick mortar beneath and 50-mm thick aggregate behind, excavation, backfilling, expansion joint at 20-m intervals. Provided that the bottom of the drain between the 2 rows of riprapped walls should be evenly leveled without excessive compaction so that natural permeability is maintained.						
1	Type 1: 1.25-m high	m	8,156				
2	Type 2: 1.75-m high	m	1,824				
	Tunnel Section crossing under Taxiway/ Road						
	1 - RCP 750 mm with 180° RC casing						
3	2 - RCP 750 mm with 180° RC casing	m	46				
4	3 - RCP 750 mm with 180° RC casing	m	76				
5	3 - RCP 750 mm with 360° RC casing / under pavement	m	30				
6	4 - RCP 750 mm with 180° RC casing	m	44				
7	4 - RCP 750 mm with 360° RC casing / under pavement	m	0				
8	5 - RCP 750 mm with 180° RC casing	m	226				
9	5 - RCP 750 mm with 360° RC casing / under pavement	m	80				
	Head Wall						
10	0.5-m high 200-mm thick Concrete Headwall on the end of RCP 750 with 360° concrete casing to enclose Type-2 RC wall	m	120				
	RC Pipe culvert at ILS/GS signal reflection area						
11	2 - RCP 600 mm with 180° RC casing	m	150				
12	3 - RCP 600 mm with 180° RC casing	m	150				
13	4 - RCP 600 mm with 180° RC casing	m	100				
	Inlet Manhole (IMH) at ILS/GS signal reflection area						
14	IMH Type 2-1 (1000mm x 2000mm)	No.	2				
15	IMH Type 2-2 (1000mm x 2700mm)	No.	3				
16	IMH Type 2-3 (1000mm x 3600mm)	No.	2				

Subcomponent-2-2: (C2) Airport Infrastructure
Section C2-2300 Series: Drainage System

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
17	Filtration Bank with gabion and Giotextile (8) nos of 5-m wide 0.5-m high Filtration bank (1) no of 3-m wide 0.5-m high Filtration bank Total to Division Summary	m	43				
Division 2: Landside Drainage							
RC Pipe							
1	RCP 300 mm diameter with 180° RC casing	m	357				
2	RCP 375 mm diameter with 180° RC casing	m	183				
3	RCP 450 mm diameter with 180° RC casing	m	956				
4	RCP 600 mm diameter with 180° RC casing	m	444				
5	RCP 750 mm diameter with 180° RC casing	m	315				
6	RCP 900 mm diameter with 180° RC casing	m	396				
7	RCP 1050 mm diameter with 180° RC casing	m	413				
PVC Pipe							
8	PVC 150 mm diameter with 360° Sand casing	m					
Inlet Manhole (IMH)							
9	IMH Type 1 (600mm x600mm)	No.	52				
10	IMH Type 2 (1350mm x 1350mm)	No.	23				
11	IMH Type 3 (1850mm x 1850mm)	No.	9				
12	Street Inlet including inlet and outlet 150-200mm dia. PVC pipe Type 1	No.	28				
Fuel Separator							
13	Fuel Separator	No.	1				
Total to Division Summary							
Division 3: Soaking Yard							
1	Filtration bank (in the Soaking yard)	m	280				
2	Geotextile	m ²	30,000				
Total to Division Summary							

Subcomponent-2-2: (C2) Airport Infrastructure
 Section 2400 Series: Miscellaneous Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section 22-2400 Series: Miscellaneous Works						
	Series Summary						
	Section 22-2410 : Curbstone, Gutter and Walkway						
	Section 22-2420 : Fence and Gates						
	Section 22-2430 : Road Signs and Guide Signs						
	Section 22-2440 : Flagpoles						
	Total to Subcomponent 2-2 Summary						
	Section 22-2410 : Curbstone, Gutter and Walkway						
	Concrete curb						
1	Type-A	m	740				
2	Type-B	m	1,130				
3	Type-C	m	720				
4	Concrete gutter	m	740				
5	Concrete walkway	m ²	1,330				
	Total to Section Summary						
	Section 22-2420 : Fence and Gates						
1	Fence; Type 1 (2120 mm high)	m	9,970				
2	Fence; Type 2 (1500 mm high)	m	620				
3	Double swing gate Type 1	No.	7				
4	Double swing gate Type II	No.	4				
	Total to Section Summary						
	Section 22-2430 : Road Signs and Guide Signs						
	One Sign on One Post						
1	RS-1	No.	9				
2	RS-2	No.	1				
3	RS-3	No.	1				
4	RS-4	No.	6				
5	RS-5	No.	1				
6	RS-7	No.	2				
7	RS-8	No.	2				
8	RS-11	No.	2				
9	RS-13	No.	2				

Subcomponent-2-2: (C2) Airport Infrastructure
 Section 2400 Series: Miscellaneous Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
10	RS-17	No.	1				
11	RS-18	No.	2				
	<u>Two Signs on One Post</u>						
12	RS-6, RS-12	No.	1				
13	RS-9, RS-10	No.	3				
	<u>One Sign on Two Post</u>						
14	RS-14	No.	2				
15	GS-6	No.	1				
16	GS-7	No.	2				
	<u>Overhead</u>						
17	GS-1	No.	1				
18	GS-2	No.	1				
19	GS-3	No.	1				
20	GS-4	No.	1				
21	GS-5	No.	1				
	Total to Section Summary						
	<u>Section 22-2440 : Flagpoles</u>						
	<u>Complete with foundation and accessories</u>						
1	9 m High mast	No.	1				
2	6 m High mast	No.	6				
	Total to Section Summary						

Subcomponent-2-2: (C2) Airport Infrastructure
 Section C2-2500 Series: Landscaping

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section C2-2500 Series: Landscaping						
	Series Summary						
	Section C2-2510: Topsoiling						
	Section C2-2520: Planting and Sodding						
	Division 1: Main Entrance/ Car Park						
	Division 2: PTB Courtyard						
	Division 3 : ATC Car Park						
	Division 4: Airfield						
	Section C2-2530: Irrigation System						
	Section C2-2540: Maintenance during DNP						
	Total to Subcomponent 2-2 Summary						
	Section C2-2510 : Topsoiling						
1	Topsoil 150mm thick	m ³	27,000				
	Total to Series Summary						
	Section C2-2520 : Planting and Sodding						
	Division 1: Main Entrance/ Car Park						
	Trees						
1	PELTHOPHORUM INERME, Yellow Copper pod 100mm-125mmØ cal., Total Ht. 3.0-3.5m	pcs.	34				
2	CASSIA BIFLORA - Yellow Cassia Total Ht. 1.8-2.0m	pcs.	1,129				
3	CASSIA FISTULA - Golden Shower 100mm-125mmØ cal., Total Ht. 3.0-3.5m	pcs.	12				
4	COCOS NUCIFERA - Coconut Trunk Ht. 3.0-3.5m	pcs.	120				
5	FICUS MACLELLANDII - Ficus Maclelland Total Ht. 2.5-3.0m	pcs.	55				
6	BISMARCKIA NOBILIS - Bismarck Palm Trunk Ht. 0.30-0.50m, Total Ht. 1.2-1.5m	pcs.	2				
7	PHOENIX DACTYLIFERA - Dates Palm Trunk Ht. 0.60m Trunk Ht. 3.0-3.5m	pcs.	5				
8	PLUMERIA RUBRA - Red Calachuchi 100mm-125mmØ Cal., Total Ht. 2.7-3.2m	pcs.	25				
9	ROYSTONEA REGIA - Royal palm Trunk Ht. 3.0-3.5m	pcs.	34				
10	SPATHODEA CAMPANULATA - African Tulip 100mm-150mmØ Cal.. Total Ht. 5-6m	pcs.	24				

Subcomponent-2-2: (C2) Airport Infrastructure
Section C2-2500 Series: Landscaping

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
11	TABEBUIA HETEROPHYLLA - Pink Tabebuia 75mm-100mmØ Cal., Total Ht. 3.5-4.0m	pcs.	14				
12	TRIPLARIS SURINAMENSIS - Palo Santo 100mm-125mmØ Cal., Total Ht. 5.0-6.0m	pcs.	16				
13	WODYETIA BIFURCATA - Foxtail Palm Trunk Ht. 2.0-2.5m	pcs.	28				
	Shrubs & Ground Cover						
14	ALPINIA PURPURATA Red Ginger, Spaced @ 0.50m O.C.	pcs.	160				
15	ARACHIS PINTOI Yellow Peanut, Spaced @ 0.15m O.C.	pcs.	3,575				
16	BOUGAINVILLEA SP. "Mary Palmer" Bougainvillea, Spaced @ 0.40m O.C.	pcs.	957				
17	CALLIANDRA HEAEMATOCEPHALA Powder Puff, Spaced @ 0.50m O.C.	pcs.	1,376				
18	EUGENIA SP. Eugenia, Spaced @ 0.40m O.C.	pcs.	9,957				
19	HELICONIA PSITTACORUM False Birds of Paradise, Spaced @ 0.40m O.C.	pcs.	2,213				
20	HIBISCUS SP. Gumamela, Spaced @ 0.40m O.C.	pcs.	6,150				
21	HYMINOCALIS LITORALIS Green Lily, Spaced @ 0.25m O.C.	pcs.	6,032				
22	IRIS PSEUDACARPUS Yellow Iris, Spaced @ 0.20m O.C.	pcs.	7,800				
23	MURAYA PANICULATA Kamuning, Spaced @ 0.40m O.C.	pcs.	8,350				
24	OSMOXYLON LINEARE Miagos, Spaced @ 0.30m O.C.	pcs.	9,312				
25	CYNODON SP. LaPrima Bermuda Grass (Sprigging)	m ²	5,728				
26	SANSEVIERIA TRIFASCIATA Yellow Sansevieria, Spaced @ 0.20m o.c.	pcs.	4,550				
27	TABERNAEMONTANA PANDACAQUI Dwarf Pandakaki, Spaced @ 0.30m O.C.	pcs.	12,445				
28	NERIUM OLEANDER Adelfa, Spaced @ 1.20m O.C.	pcs.	696				
29	CONC. STEPPING PADS 0.60 X 0.60M	pcs.	337				
	Total to Series Summary						

Subcomponent-2-2: (C2) Airport Infrastructure
Section C2-2500 Series: Landscaping

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Division 2: PTB Courtyard</u>							
<u>Trees</u>							
30	PRITCHARDIA PACIFICA - Pritchardia Palm Trunk Ht. 1.5-1.8m	pcs.	14				
31	BISMARCKIA NOBILIS - Bismarck Palm Trunk Ht. 0.30-0.50m, Total Ht. 1.2-1.5m	pcs.	36				
32	PHOENIX DACTYLIFERA - Dates Palm Trunk Ht. 2.1-2.4m	pcs.	11				
33	ROYSTONEA REGIA - Royal Palm Trunk Ht. 3.0-3.5m	pcs.	65				
34	1.2m X 1.2M X 1.2M Fiberglass Reinforced Planter Box	pcs.	14				
<u>Shrubs & Ground Cover</u>							
35	CYNODON SP. LaPrima Bermuda Grass (Sprigging)	m ²	713				
36	FLAT BULIK STONES	m ³	16				
37	CORALLINE LIME STONES	m ²	38				
Total to Series Summary							
<u>Division 3 : ATC Car Park</u>							
<u>Trees</u>							
38	DELONIX REGIA, Fire Tree 125mmØ-150mmØ Cal./Total Ht. 4.5-6.0m	pcs.	15				
39	CASSIA FISTULA, Golden Shower 100mm-125mmØ cal., Total Ht. 3.0-3.5m	pcs.	12				
<u>Shrubs & Ground Cover</u>							
40	ARACHIS PINTOI Yellow Peanut, Spaced @ 0.15m O.C.	pcs.	8,811				
41	BOUGAINVILLEA SP. "Mary Palmer" Bougainvillea, Spaced @ 0.40m O.C.	pcs.	497				
Total to Series Summary							
<u>Division 4 : Airfield & Other Areas</u>							
42	CYNODON SP. " La Prima Blend" (Seeds/kg. - Approx. 2,200,000), Seeding Rate - 30-35kg./Hectare	m ²	65,455				
43	Other Area La Prima Seeded Bermuda Blend	m ²	42,930				
Total to Series Summary							
<u>Section C2-2530: Irrigation System</u>							
<u>SPRINKLERS & ACCESSORIES</u>							
1	MP300090-210 MP Rotator - 40PSI, 9.1M Radius, 3.64GPM	pcs.	10				

Subcomponent-2-2: (C2) Airport Infrastructure
Section C2-2500 Series: Landscaping

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
2	MP3000360 MP Rotator - 40PSI, 9.1M Radius, 1.82GPM	pcs.	49				
3	PROS-04-PRS40 POP-UP BODY 4" Pop-up Ht. Body	pcs.	59				
4	ICV-151G SOLENOID VALVE 24VAC, 20-135GPM, 20-220PSI	pcs.	7				
5	IC-601-PL (+1 ICM-600) 12 STA. CONTROLLER 220VAC, 1AMP, 12 Stations	unit	1				
6	SJ-512 SWING JOINT 1/2"Ø x 12" Swing Joint	pcs.	59				
7	HSJ-1 SWING JOINT 1"Ø x 12" Swing Joint	pcs.	122				
8	HQ-44RC QUICL COUPLING VALVE 1" Inlet x 3/4" Outlet Quick Coupling Valve	pcs.	122				
9	HK-44 QUICK COUPLING KEY 3/4" QCV Key	pcs.	5				
10	HS-1 QUICK COUPLING SWEVEL 3/4" QCV Swevel Elbow	pcs.	5				
11	160700 SPOTSHOT HOSE-END NOZZLE 3/4" Hose-End Nozzle	pcs.	5				
12	6"Ø ROUND VALVE BOX	pcs.	122				
13	12" RECT. VALVE BOX	pcs.	27				
PIPES & FITTINGS							
14	6"Ø PVC PIPE CL150 X 6m, SCH80, ASTM D1784	pcs.	25				
15	1½"Ø PVC PIPE CL150 X 3m, SCH80, ASTM D1784	pcs.	65				
16	1¼"Ø PVC PIPE CL150 X 3m, SCH80, ASTM D1784	pcs.	25				
17	1"Ø PVC PIPE CL150 X 3m, SCH80, ASTM D1784	pcs.	1,167				
18	¾"Ø PVC PIPE CL150 X 3m, SCH80, ASTM D1784	pcs.	43				
19	½"Ø PVC PIPE CL150 X 3m, SCH80, ASTM D1784	pcs.	118				
20	1½" PVC Tee	pcs.	40				
21	1¼" PVC Tee	pcs.	35				
22	1" PVC Tee	pcs.	135				
23	¾" PVC Tee	pcs.	30				
24	½" PVC Tee	pcs.	20				
25	1½" x 90° PVC Elbow	pcs.	26				
26	1¼" x 90° PVC Elbow	pcs.	28				

Subcomponent-2-2: (C2) Airport Infrastructure
Section C2-2500 Series: Landscaping

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
27	1" x 90° PVC Elbow	pcs.	165				
28	¾" x 90° PVC Elbow	pcs.	21				
29	½" x 90° PVC Elbow	pcs.	58				
30	2" X 1½" PVC Bushing Reducer	pcs.	34				
31	1½" X 1¼" PVC Bushing Reducer	pcs.	42				
32	1¼" X 1" PVC Bushing Reducer	pcs.	50				
33	1" X ¾" PVC Bushing Reducer	pcs.	60				
34	¾" X ½" PVC Bushing Reducer	pcs.	75				
35	6" X 2" C.I. Saddle Clamp	pcs.	27				
36	1½" Brass Gate Valve	pcs.	7				
37	1" Brass Gate Valve	pcs.	20				
38	2" Male Adaptor	pcs.	27				
39	1½" Male Adaptor	pcs.	28				
40	1" Male Adaptor	pcs.	40				
41	1" Female Adaptor	pcs.	122				
42	½" Female Adaptor	pcs.	59				
43	DBY Connector	pcs.	30				
44	#12 U.F. Wire (Black)	pcs.	475				
45	#14 U.F. Wire (Red)	pcs.	2,240				
46	¾"Ø Garden Hose x 25m	rolls	5				
47	Electrical Tape	rolls	15				
48	Teflon Tape	rolls	75				
49	721 PVC Blue Cement	sum	1				
Total to Series Summary							
Section C2-2540: Maintenance during Defect Notification Period							
1	Maintenance of Plants and Irrigation System during Defect Notification Period	month	12				
Total to Series Summary							

BILL OF QUANTITIES
OF
COMPONENT-3:
U: UTILITY WORKS

**BILL OF QUANTITIES
OF**

COMPONENT-3:

U1: WATER SUPPLY SYSTEM

Subcomponent-3-U: Utility Works
Component Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<u>Component-3-U: Utility Works</u>						
	<u>Component Summary</u>						
	U1: Water Supply System						
	U2: Power Supply System						
	U3: Sewage Treatment System						
	Total to Work Summary						

Subcomponent-3-1: (U1): Water Supply System
Subcomponent Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-3-1: (U1): Water Supply System						
	Subcomponent Summary						
	Section U1-3110: Water Supply System			<i>Price shall be quoted in BOQ of Component-2: Civil Works; CI: Access Road</i>			
	Section U1-3130: Water Storage						
	Section U1-3150: Water Distribution System						
	Total to Component Summary						

Subcomponent-3-1: (U1): Water Supply System
Section UI-3110: Water Supply Pipe Line

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section UI-3110: Water Supply						
	TRANSMISSION PIPELINES						
1	150 mm dia, HDPE-PE100 SDR 13.6(PN 12.5)						
	VALVES						
2	100 mm Gate Valves on Proposed Lines						
	ASSEMBLIES						
3	25 mm dia. Air Vacuum/ Air Release Valve						
4	75 mm dia. Blow-off Assemblies						
5	100 mm dia. Main Water Meter						
	PIPE CROSSING						
6	Canal Pipe Crossing						
	Total to Subcomponent 3-1 Summary						

(Note: Quotation for Section 3110 of Component-3-1: Water Supply System shall be included in Component-2-1: C1: Access road).Access Road

Therefore, Rate and Amount in this Section 3110 shall be blank.

Subcomponent-3-1: (U1): Water Supply System

Section UI-3130: Water Storage

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section UI-3130: Water Storage							
Reservoirs							
1	Two (2) units of 255 m³ Capacity Ground Water Reservoirs	sum	2				
Underground Fire and Rescue Water							
Excavation							
2	Common Excavation	m3	177				
3	Rock Excavation	m3	146				
Filling							
4	Backfilling to subgrade	m3	238				
Filling/Compaction							
5	Gravel bed; 200mm thick	m2	27				
Concrete Works							
In-situ Concrete							
Concrete: Class B3 in:							
6	Lean concrete; 50mm thick	m3	2				
Reinforced Concrete: Class B1 in:							
7	Slab	m3	4				
8	Wall	m3	16				
9	Stair	m3					
Reinforced Concrete: Class B2 in:							
10	Ground Slab	m3	6				
Formwork							
Class F1 Formwork in:							
11	Slab	m2	21				
12	Ground Slab	m2	6				
13	Wall	m2	119				
Reinforcement							
15	Reinforcement bar - (Grade 40, = 276 N/mm2) 10 mm ~ 12 mm	kg	1,900				
Miscellaneous							
18	Manhole Cover (Circular type Dia 0.6m)	unit	1				
19	Ladder Rung	unit	7				
Total to Subcomponent 3-1 Summary							

Subcomponent-3-1: (U1): Water Supply System

Section U1-3150: Water Distribution

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section U1-3150: Water Distribution							
1	Booster Pump Unit (incl. Pump, Motor, Control Panel, pressure tank and Accessories)	sum	1				
2	Electric Drive Fire Pump (incl. pump, motor, Control Panel	sum	1				
3	Engine Drive Fire Pump (incl. pump, engine, Control Panel,	sum	1				
4	Jockey Pump (incl. pump, motor, Control Panel and	sum	2				
PVC Pipes & Fittings for Outdoor Fire Protection, Class 150 Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand bedding and Accessories							
5	250 mm	m	634				
6	200 mm	m	68				
7	150 mm	m	1,209				
Valves							
8	Alarm Check Valve 150 mm	nos	5				
9	Butterfly Valve 150 mm	nos	6				
10	Gate Valve 150 mm	nos	4				
11	Flexible Joint 150 mm	nos	6				
12	Relief Valve	nos	2				
13	Fire Pump Test Connection, 65 mm x 4-Way	nos	1				
14	Fire Department Connection, 65 mm x 2-Way	nos	1				
15	Fire Hydrants	nos	9				
16	Wet Pilot Type Deluge Valve	nos	3				
Pipework, Polyvinyl chloride pipe (High Density VP) Incl, Fittings Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand bedding and Accessories							
17	150 mm	m	426				
18	100 mm	m	449				
19	80 mm	m	15				
20	50 mm	m	912				
21	40 mm	m	73				
22	32 mm	m	240				
23	25 mm	m	70				
24	20 mm	m	26				
Gate Valves for Water Distribution (JIS 10 Kg/cm2)							

Subcomponent-3-1: (U1): Water Supply System

Section U1-3150: Water Distribution

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
25	150 mm	nos	5				
26	100 mm	nos	10				
27	80 mm	nos	1				
28	50 mm	nos	7				
29	32 mm	nos	4				
30	25 mm	nos	4				
31	20 mm	nos	4				
	Y-Strainer (10 Kg/cm2)						
32	100 mm	nos	3				
	Flexible Joint (10 Kg/cm2)						
33	150 mm	nos	4				
34	25 mm	nos	2				
	Water Level Control Valve (10 Kg/cm2)						
35	100 mm	nos	2				
36	80 mm	nos	1				
	Pilot Valve						
37	25 mm	nos	3				
	Total to Subcomponent 3-1 Summary						

BILL OF QUANTITIES

OF

COMPONENT-3:

U2: POWER SUPPLY SYSTEM

Subcomponent-3-2: U2: Power Supply System
Subcomponent Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Subcomponent-3-2: (U2) Power Supply System</p> <p>Subcomponent Summary</p> <p>Section U2-3210 : Electrical Power Supply</p> <p>Section U2-3230 : Standby Generator</p> <p>Section U2-3250 : Photovoltaic Power Generation System</p> <p>Section U2-3270 : Power Distribution</p> <p>Section U2-3290 : Road and Car park Lighting</p> <p>Total to Component Summary</p>						

Subcomponent-3-2: U2: Power Supply System
Section U2-3210 : Electrical Power Supply

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section U2-3210 : Electrical Power Supply							
1	Main VCB 15kV	No	1				
2	ATS 2VCB 7.2kV	No	1				
3	Take-off Panel (VT.ZPD) (1)	No	1				
4	3VCB Panel (2)	No	1				
5	3VCB Panel (3)	No.	1				
6	3VCB Panel (4)	No.	1				
7	1VCB Panel (5)	No.	1				
8	2000kVA, Transformer, Cast Resin, 3Ø, 13.2kV/4.16kV Indoor Type	No.	1				
9	Capacitor Bank, 5KV, 1000KVAR, with complete accessories	No.	1				
10	700kVA, Transformer, Cast Resin, 3Ø, 4.16kV/230V Indoor Type (PTB)	No.	1				
11	500kVA, Transformer, Cast Resin, 3Ø, 4.16kV/230V Indoor Type (CTO)	No.	1				
12	200kVA, Transformer, Cast Resin, 3Ø, 4.16kV/230V Indoor Type (AGL)	No.	1				
13	175kVA, Transformer, Cast Resin, 3Ø, 4.16kV/230V Indoor Type (WPH)	No.	1				
14	100kVA, Transformer, Cast Resin, 4.16kV/230V, 3Ø, Indoor Type (PWH)	No.	1				
15	100kVA, Transformer, Cast Resin, 4.16kV/230V, 3Ø, Outdoor Type (STP)	No.	1				
16	50kVA, Transformer, Cast Resin, 4.16kV/230V, 3Ø, Indoor Type (ANS)	No.	1				
17	VCB Panel for PTB Indoor Type, 7.2kV	No.	1				
18	VCB Panel for Pump House Indoor Type, 7.2kV	No.	1				
19	LBS, Power Fuse MVSG, 7.2kV. Outdoor Type (STP)	No.	1				
20	LBS, Power Fuse, MVSG, 7.2kV with Extended Buss Bar. Indoor Type (VOR)	No.	1				
21	LBS, Power Fuse, MVSG, 7.2kV with Cast Resin	No.	3				
Low Voltage Switch Gear							
22	LVSG - PTB, 230V	No.	1				
23	LVSG - PWH, 230V	No.	1				
24	LVSG - AGL, 230V	No.	1				

Subcomponent-3-2: U2: Power Supply System
Section U2-3210 : Electrical Power Supply

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
25	LVSG - CTO, 230V	No.	1				
26	LVSG - WPH, 230V	No.	1				
27	LVSG - STP, 230V	No.	1				
28	LVSG - LLZ, GS and VOR, 230V	No.	3				
	Cables						
29	240 mm ² XLPE, 600V	m	550				
30	120 mm ² XLPE, 600V	m	75				
31	95 mm ² XLPE, 600V	m	175				
32	35 mm ² XLPE, 600V	m	50				
33	25 mm ² XLPE, 600V	m	200				
34	6 mm ² XLPE, 600V (VOR/GS/LLZ)	m	50				
	UPS						
35	100 kVA, UPS, 230V, 3 Ø (AGL)	No.	1				
	Other						
36	Grounding System	Sum	1				
37	Provisional sum of ten million peso for the Bohol Electric Company 1 (BOHECO 1) overhead HV line from the proposal 10MVA substation and also for all required deposits payable to Bohol Electric Company 1 (BOHECO 1)	Sum	1				
	Total to Subcomponent Summary						

Subcomponent-3-2: U2: Power Supply System
Section 3230: Stand-by Generator

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
SECTION 3230: Stand-by Generator							
1	400 kVA, Diesel Engine Generator, 4.16kV, 1800 rpm, PF-80%, including Fuel/Exhaust Piping, Generator Control Panels, cabling, wiring. Outgoing VCB switchgear, auxiliary equipment, grounding equipment and other equipment necessary to complete the works including ancillary transformer, 50kVA, 4.16kV/230V	No.	3				
2	Main Fuel Tank (18 kl) and Daily Fuel Tank (900 l) including supporting structure, pipes and concrete foundation.	No.	1				
Total to Subcomponent Summary							

Subcomponent-3-2: U2: Power Supply System
 Section 3280: Photovoltaic Power Generation System

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section 3250: Photovoltaic Power Generation System							
Photovoltaic Module							
1	480 kW or above, 210 W, Crystalline Type	nos	2304				
Mount on Metal Roof							
2	Mount Parts Photovoltaic Module	nos	9056				
3	Rail (Straight)	m	1890				
4	Fixing Clasp (for Edge on Straight Rail, Angle Adjustable Type)	nos	1652				
5	Fixing Clasp (for Middle on Straight Rail, Angle Adjustable Type)	nos	2310				
6	Rail (Curve on Roof)	m	2430				
7	Fixing Clasp (for Edge on Curve Rail, Angle Adjustable Type)	nos	2124				
8	Fixing Clasp (for Middle on Curve Rail, Angle Adjustable Type)	nos	2970				
Connection Box							
9	Connection Box	sum	1				
Junction Box							
10	Connection Box (5 Input Circuits)	nos	2				
11	Connection Box (4 Input Circuits)	nos	3				
Power Conditioner							
12	500 kVA Type, 5 Input Circuits	sum	1				
Board for Power Conditioner							
13	500 kVA 200/230V	lot	1				
Meteorological Monitoring System							
14	Meteorological Monitoring and Data Collecting System	set	1				
Display Monitor							
15	Display Monitor with Cable and Fixture	set	3				
Power Cable							
16	Power Cable	sum	1				
Control/Communication Cable							
17	Control/Communication Cable	sum	1				
Electrical Conduit (for DC Cable)							
18	PFD 28 mm (for 600V CVD 8 sqmm)	m	170				
19	FEP 150 mm (for 600V CVD 150 sqmm)	m	520				
Cable Tray (to Elec. Room in PTB)							
20	Stright Cable Tray, W=400 mm, L=3,000 mm	nos	3				
21	Bend Cable Tray, W=400 mm	nos	2				
22	Connecting Clasp	nos	8				
Test Equipment							
23	Clamp Meter	nos	1				

Subcomponent-3-2: U2: Power Supply System
Section 3280: Photovoltaic Power Generation System

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
24	Spare Parts	Sum	1				
	Total to Subcomponent Summary						

Component-3-2: U2: Power Supply System
Section U2-3270 : Power Distribution

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section U2-3270 : Power Distribution</u>							
1	Concrete Pedestal with 8-110 mm PVC for 13.2kV Overhead line entrance	No.	1				
2	1C-50 mm ² XLPE, 15kV	m	600				
3	1C-25 mm ² XLPE, 5kV	m	8,710				
4	1C-35 mm ² XLPE, 5kV	m	5,460				
5	1C-50 mm ² XLPE, 5kV	m	705				
6	1C-95 mm ² XLPE, 5kV	m	75				
7	1C-120 mm ² XLPE, 5kV	m	180				
<u>15kV Splicing Kit</u>							
8	For 50 mm ² XLPE, 15kV (1C)	No.	4				
9	For 25 mm ² XLPE, 5kV (1C)	No.	16				
10	For 35 mm ² XLPE, 5kV (1C)	No.	22				
11	For 50 mm ² XLPE, 5kV (1C)	No.	4				
12	For 95 mm ² XLPE, 5kV (1C)	No.	2				
13	For 120 mm ² XLPE, 5kV (1C)	No.	6				
<u>Cable Duct Bank</u>							
14	12-100 mm Ø PVC	m	25				
15	10-100 mm Ø PVC	m	205				
16	6-100 mm Ø PVC	m	175				
17	5-100 mm Ø PVC	m	50				
18	4-100 mm Ø PVC	m	380				
19	2-50 mm Ø PVC	m	270				
20	2-100 mm Ø PVC & 2-50 mm Ø PVC	m	120				
21	1-100 mm Ø PVC & 2-50 mm Ø PVC	m	200				
22	Manhole	No.	25				
Total to Subcomponent Summary							

Subcomponent-3-2: U2: Power Supply System
Section U2-3290 : Road and Car park Lighting

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section U2-3290 : Road and Car park Lighting</u>							
1	Hot Dip Galvanized Double Arm Lighting Pole, 12m	No.	10				
2	Hot Dip Galvanized Single Arm Lighting Pole, 12m	No.	29				
3	120W LED Type Light, Complete with Lighting Fixture, etc.	No.	65				
4	Hot Dip Galvanized 15m Car park Lighting Pole	No.	4				
Panelboard							
5	RCPN (BMS Interface)	No.	1				
6	RCPNE (BMS Interface)	No.	1				
Wires and Cables							
7	38 mm ² THHN	m	1320				
8	30 mm ² THHN	m	2400				
9	22 mm ² THHN	m	2000				
10	14 mm ² THHN	m	900				
11	8.0 mm ² THHN	m	200				
12	5.5 mm ² THHN	m	1500				
13	1C-6 mm ² XLPE	m	100				
14	1C-4 mm ² XLPE	m	2500				
Civil Works							
15	Lighting Pole Pedestal/Foundation, 12m	No.	39				
16	Car park Lighting Pole Pedestal/Foundation, 15m	No.	4				
17	Handholes	No.	43				
Concrete Duct Bank							
18	1-50mm Ø PVC	m	1710				
19	2-50mm Ø PVC	m	400				
20	3-50mm Ø PVC	m	150				
21	4-50mm Ø PVC	m	100				
22	8-50mm Ø PVC	m	70				
23	Grounding System	Sum	1				
<u>Access Road</u>							
24	Hot Dip Galvanized, Double Arm Lighting Pole 12m	No.	59				
25	120W LED Type Light, Complete with Lighting Fixture, etc.	No.	118				

Subcomponent-3-2: U2: Power Supply System
Section U2-3290 : Road and Car park Lighting

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Panelboard							
26	ARLP1 & 2, Outdoor Type, Stainless Steel with Photo cell, NEMA4X	No.	2				
Power Accessories							
27	Pole Mounted Transformer 3Ø or 3-1Ø, 15kVA, 13.2kV/230V, 60Hz	Sum	2				
28	Pole Accessories includes; 15kV ACSR Cable, Load Break Switch, Power Fuse, Lightning Arrester, Connections, Pole Line Hardware, etc.	Sum	1				
29	KWH Meter	No.	2				
Wires and Cables							
30	60 mm ² THHN	m	6800				
31	50 mm ² THHN	m	4300				
32	30 mm ² THHN	m	2500				
33	8 mm ² THHN	m	2000				
34	5.5 mm ² THHN	m	1500				
35	6 mm ² XLPE	m	200				
36	5.5 mm ² TW	m	1200				
37	Grounding System	Sum	1				
Civil Works							
38	Pedestal with 3-50 mmØ PVC	No.	1				
39	Pedestal for Panelboard	No.	2				
40	Fence, Gate, Lock and Gravel bed	Sum	2				
41	Handholes for Lights	No.	59				
42	Handholes for Pole Mounted Transformer	No.	4				
43	Foundation/Pedestal for 12m double arm Pole	No.	59				
44	2-50 mm Ø PVC	m	1900				
45	3-50 mm Ø PVC	m	70				
46	4-50 mm Ø PVC	m	900				
Total to Subcomponent Summary							

BILL OF QUANTITIES

OF

COMPONENT-3:

U3: SEWAGE TREATMENT SYSTEM

Subcomponent-3-3: Sewage Treatment System
Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	SUBCOMPONENT 3-3: SEWAGE TREATMENT SYSTEM						
	Subcomponent Summary						
	Section 3305: General Requirement					-	
	Section U3-3310: CIVIL WORKS					-	-
	Section U3-3350: MECHANICAL EQUIPMENT					-	-
	Section U3-3370: ELECTRICAL EQUIPMENT					-	-
	Total to Component Summary					-	-

Subcomponent-3-3: Sewage Treatment System

Section 3305: Maintenance and Repair Services during the Defect Notification Period

Item No.	Description	Unit	Qty	Rate		Amount		
				Local Peso	Foreign Yen	Local Peso	Foreign Yen	
	<u>Section U3-3305: GENERAL REQUIREMENTS</u>							
1	Maintenance and Repair Services during the Defect Notification Period	month	12					
	Total to Subcomponent Summary						-	

Subcomponent-3-3: Sewage Treatment System

Section 3310: Civil Work

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section U3-3310: CIVIL WORKS						
	Division-1: GRIT CHAMBER/ PUMP STATION						
	Division-2: DISTRIBUTION CHAMBER						
	Division-3: OXIDATION DITCH						
	Division-4: FINAL CLARIFIER						
	Division-5: DISINFECTION TANK						
	Division-6: SLUDGE THICKENER						
	Division-7: SLUDGE DRYING BED						
	Division-8: YARD PIPE						
	Division-9: SEWER LINE WORK						
	Total to Subcomponent Summary						
	Division-1: GRIT CHAMBER/ PUMP STATION						
	Excavation						
1	Common Excavation	m ³	814				
2	Rock Excavation	m ³	668				
	Filling						
3	Backfilling to subgrade	m ³	739				
	Filling/Compaction						
4	Gravel bed; 200mm thick	m ²	23				
	Concrete Works						
	In-situ Concrete						
	Concrete: Class B3 in:						
5	Lean concrete; 50mm thick	m ³	6				
	Reinforced Concrete: Class B1 in:						
6	Slab	m ³	18				
7	Wall	m ³	146				
8	Stair	m ³	4				
	Reinforced Concrete: Class B2 in:						
9	Ground Slab	m ³	61				
	Formwork						
	Class F1 Formwork in:						
10	Slab	m ²	144				
11	Ground Slab	m ²	26				
12	Wall	m ²	617				

Subcomponent-3-3: Sewage Treatment System

Section 3310: Civil Work

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
13	Stair	m ²	9				
	Reinforcement						
14	Reinforcement bar - (Grade 40, = 276 N/mm2) 10 mm ~ 12 mm	kg	1844				
15	Reinforcement bar - (Grade 60, = 415 N/mm2) 16mm ~ 25mm	kg.	34569				
	Miscellaneous						
16	Plain Concrete	m ³	7				
17	Manhole Cover (Circular type Dia 0.6m)	unit	2				
18	Manhole cover (FRP 1.4x0.6m)	unit	1				
19	Manhole cover (FRP 1.0x0.5m)	unit	2				
20	Manhole cover (FRP 0.6x0.5m)	unit	2				
21	Manhole cover (FRP 0.4x0.5m)	unit	2				
22	Manhole cover (FRP 1.2x0.6m)	unit	2				
23	Manhole cover (FRP 1.5x0.6m)	unit	2				
24	Ladder Rung	unit	37				
25	Handrail	m	50				
26	Corrosion Protection Paint (Type D1)	m ²	164				
27	SS304 Pipe φ100mm	m	23				
28	SS304 Pipe φ200mm	m	3				
29	FRP ROOF (Mechanical Pit)	unit	1				
Total to Division Summary							
	<u>Division-2: DISTRIBUTION CHAMBER</u>						
	<u>Excavation</u>						
1	Common Excavation	m ³	21				
2	Rock Excavation	m ³	5				
	<u>Filling</u>						
3	Backfilling to subgrade	m ³	11				
	<u>Filling/Compaction</u>						
4	Gravel bed; 200mm thick	m ²	3				
	<u>Concrete Works</u>						
	<u>In-situ Concrete</u>						
	<u>Concrete: Class B3 in:</u>						
5	Lean concrete; 50mm thick	m ³	1				

Subcomponent-3-3: Sewage Treatment System
Section 3310: Civil Work

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Reinforced Concrete: Class B1 in:							
6	Slab	m ³	1				
7	Wall	m ³	9				
8	Stair	m ³					
Reinforced Concrete: Class B2 in:							
9	Ground Slab	m ³	6				
Formwork							
Class F1 Formwork in:							
10	Slab	m ²	7				
11	Ground Slab	m ²	8				
12	Wall	m ²	71				
Reinforcement							
13	Reinforcement bar - (Grade 40, = 276 N/mm2) 10 mm ~ 12 mm	kg	50				
14	Reinforcement bar - (Grade 60, = 415 N/mm2) 16mm ~ 25mm	kg.	2,730				
Miscellaneous							
15	Plain Concrete	m ³	1				
16	Manhole Cover (Circular type Dia 0.6m)	unit	5				
17	Manhole Cover (Dome type 0.4x 0.8m)	unit	1				
18	Ladder Rung	unit	30				
19	Handrail	m	12				
20	Stop Log (W=0.8m x H=0.5m x 3pc.)	unit	1				
21	Corrosion Protection Paint (Type D1)	m ²	15				
22	SS304 Pipe φ100mm	m	4				
23	PVC Pipe φ100mm	P.C.	2				
Total to Division Summary							
Division-3: OXIDATION DITCH							
Excavation							
1	Common Excavation	m ³	672				
2	Rock Excavation	m ³	40				
Filling							
3	Backfilling to subgrade	m ³	240				

Subcomponent-3-3: Sewage Treatment System
Section 3310: Civil Work

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Filling/Compaction						
4	Gravel bed; 200mm thick	m ²	39				
	Concrete Works						
	In-situ Concrete						
	Concrete: Class B3 in:						
5	Lean concrete; 50mm thick	m ³	10				
	Reinforced Concrete: Class B1 in:						
6	Slab	m ³	12				
7	Wall	m ³	168				
8	Stair	m ³	6				
	Reinforced Concrete: Class B2 in:						
9	Ground Slab	m ³	84				
	Formwork						
	Class F1 Formwork in:						
10	Slab	m ²	78				
11	Ground Slab	m ²	27				
12	Wall	m ²	1,069				
13	Stair	m ²	5				
	Reinforcement						
14	Reinforcement bar - (Grade 40, = 276 N/mm2) 10 mm ~ 12 mm	kg	4,006				
15	Reinforcement bar - (Grade 60, = 415 N/mm2) 16mm ~ 25mm	kg.	33,337				
	Miscellaneous						
16	Plain Concrete	m ³	1				
17	Manhole Cover (Circular type Dia 0.6m)	unit	3				
18	Manhole cover (FRP 2.0x2.0m)	unit	2				
19	Ladder Rung	unit	40				
20	Handrail	m	138				
21	Water proof Lining	m ²	550				
22	SS304 Pipe φ100mm	m	8				
	Total to Division Summary						

Subcomponent-3-3: Sewage Treatment System
Section 3310: Civil Work

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Division-4: FINAL CLARIFIER							
Excavation							
1	Common Excavation	m ³	430				
2	Rock Excavation	m ³	92				
Filling							
3	Backfilling to subgrade	m ³	155				
Filling/Compaction							
4	Gravel bed; 200mm thick	m ²	21				
Concrete Works							
In-situ Concrete							
Concrete: Class B3 in:							
5	Lean concrete; 50mm thick	m ³	5				
Reinforced Concrete: Class B1 in:							
6	Slab	m ³	4				
7	Wall	m ³	97				
8	Stair	m ³	5				
Reinforced Concrete: Class B2 in:							
9	Ground Slab	m ³	45				
Formwork							
Class F1 Formwork in:							
10	Slab	m ²	26				
11	Ground Slab	m ²	46				
12	Wall	m ²	522				
13	Stair	m ²	23				
Reinforcement							
14	Reinforcement bar - (Grade 40, = 276 N/mm2) 10 mm ~ 12 mm	kg	1,586				
15	Reinforcement bar - (Grade 60, = 415 N/mm2) 16mm ~ 25mm	kg.	14,296				
Miscellaneous							
18	Plain Concrete	m ³	30				
19	Manhole Cover (Circular type Dia 0.6m)	unit	2				
20	Pump Pit hole cover (0.5x0.6m)	unit	4				

Subcomponent-3-3: Sewage Treatment System

Section 3310: Civil Work

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
21	Scum Pit Grating (1.1x0.6m)	unit	1				
22	Ladder Rung	unit	53				
23	Handrail	m	42				
24	Corrosion Protection Paint (Type D1)	m ²	121				
25	SS304 Pipe φ150mm	m	17				
26	SS304 Pipe φ100mm	m	14				
27	SS304 Pipe φ125mm	m	5				
28	Water proof Lining	m ²	273				
Total to Division Summary							
<u>Division-5: DISINFECTION TANK</u>							
Excavation							
1	Common Excavation	m ³	181				
2	Rock Excavation	m ³	10				
Filling							
3	Backfilling to subgrade	m ³	111				
Filling/Compaction							
4	Gravel bed; 200mm thick	m ²	7				
Concrete Works							
In-situ Concrete							
Concrete: Class B3 in:							
5	Lean concrete; 50mm thick	m ³	2				
Reinforced Concrete: Class B1 in:							
6	Slab	m ³	7				
7	Wall	m ³	18				
8	Stair	m ³	2				
Reinforced Concrete: Class B2 in:							
9	Ground Slab	m ³	10				
Formwork							
Class F1 Formwork in:							
10	Slab	m ²	64				
11	Ground Slab	m ²	11				
12	Wall	m ²	73				

Subcomponent-3-3: Sewage Treatment System

Section 3310: Civil Work

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
13	Stair	m ²	10				
	Reinforcement						
14	Reinforcement bar - (Grade 40, = 276 N/mm2) 10 mm ~ 12 mm	kg	1489				
15	Reinforcement bar - (Grade 60, = 415 N/mm2) 16mm ~ 25mm	kg.	4152				
	Miscellaneous						
16	Plain Concrete	m ³	2				
17	Manhole Cover (Circular type Dia 0.8m)	unit	1				
18	Manhole cover (FRP 0.8 x0.8m)	unit	1				
19	Manhole cover (FRP 0.5x1.0m)	unit	1				
20	Ladder Rung	unit	22				
21	Handrail (H=1.1m)	m	8				
22	Water proof Lining	m ²	95				
23	SS304 Pipe φ100mm	m	18				
	Architecture Works						
24	Chemical House	m ²	12				
	Total to Subcomponent Summary						
	<u>Division-6: SLUDGE THICKENER</u>						
	Excavation						
1	Common Excavation	m ³	78				
2	Rock Excavation	m ³	8				
	Filling						
3	Backfilling to subgrade	m ³	68				
	Filling/Compaction						
4	Gravel bed; 200mm thick	m ²	1				
	Concrete Works						
	In-situ Concrete						
	Concrete: Class B3 in:						
5	Lean concrete; 50mm thick	m ³	1				
	Reinforced Concrete: Class B1 in:						
6	Slab	m ³	1				
7	Wall	m ³	15				
8	Stair	m ³	2				

Subcomponent-3-3: Sewage Treatment System
Section 3310: Civil Work

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Reinforced Concrete: Class B2 in:						
9	Ground Slab	m ³	5				
	Formwork						
	Class F1 Formwork in:						
10	Slab	m ²	5				
11	Ground Slab	m ²	5				
12	Wall	m ²	93				
13	Stair	m ²	10				
	Reinforcement						
14	Reinforcement bar - (Grade 40, = 276 N/mm2) 10 mm ~ 12 mm	kg	204				
15	Reinforcement bar - (Grade 60, = 415 N/mm2) 16mm ~ 25mm	kg.	3837				
	Miscellaneous						
16	Plain Concrete	m ³	1				
17	Manhole Cover (Circular type Dia 0.6m)	unit	1				
18	Pump Hole Cover (0.5x0.6m)	unit	2				
19	Ladder Rung	unit	16				
20	Handrail	m	10				
21	Corrosion Protection Paint (Type D1)	m ²	14				
22	SS304 Pipe φ100mm	m	2				
23	SS304 Pipe φ150mm	m	3				
	Total to Division Summary						
	<u>Division-7: SLUDGE DRYING BED</u>						
	Excavation						
1	Common Excavation	m ³	1161				
2	Rock Excavation	m ³	121				
	Filling						
3	Backfilling to subgrade	m ³	424				
	Filling/Compaction						
4	Gravel bed; 200mm thick	m ²	129				
	Concrete Works						
	In-situ Concrete						

Subcomponent-3-3: Sewage Treatment System

Section 3310: Civil Work

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Concrete: Class B3 in:						
5	Lean concrete; 50mm thick	m ³	32				
	Reinforced Concrete: Class B1 in:						
6	Wall	m ³	113				
7	Stair	m ³	4				
	Reinforced Concrete: Class B2 in:						
8	Ground Slab	m ³	151				
	Formwork						
	Class F1 Formwork in:						
9	Ground Slab	m ²	59				
10	Wall	m ²	1,061				
11	Stair	m ²	7				
	Reinforcement						
12	Reinforcement bar - (Grade 40, = 276 N/mm2) 10 mm ~ 12 mm	kg	6454				
13	Reinforcement bar - (Grade 60, = 415 N/mm2) 16mm ~ 25mm	kg.	31,734				
	Miscellaneous						
16	Plain Concrete	m ³	83				
17	Ladder Rung	unit	600				
18	Sludge bed gravel	m ³	101				
19	Sludge bed sand	m ³	96				
20	Grating 900x850 mm	unit	20				
21	Drain PVC Pipe Dia 100mm	m	121				
22	Drain PVC Porous Pipe Dia 100mm	m	154				
23	Protect Plate	unit	20				
24	Corrosion Protection Paint (Type D1)	m ²	102				
25	Stop Log	unit	20				
26	FRP Roof (390 m2 / unit)	unit	2				
	Total to Division Summary						
	<u>Division-8: YARD PIPE</u>						
	Yard Pipe						
1	80mm uPVC, average excavation depth=0.84m)	m	107				

Subcomponent-3-3: Sewage Treatment System

Section 3310: Civil Work

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
2	80mm uPVC, average excavation depth=1.44m	m	106				
3	100mm PVC, average excavation depth=1.60m	m	219				
4	100mm PVC, average excavation depth=2.25m	m	26				
5	125mm PVC, average excavation depth=0.89m	m	5				
6	60mm uPVC	m	50				
7	Manhole φ900 mm, average depth=1.62m	nos	5				
8	Manhole φ900mm, average depth=2.25m	nos	5				
Total to Division Summary							
<u>Division-9: SEWER LINE WORK</u>							
Sewer Line							
1	200mm PVC, average excavation depth=2.15m	m	270				
2	200mm PVC, average excavation depth=2.95m	m	169				
3	200mm PVC, average excavation depth=3.97m	m	205				
4	Manhole φ900mm, average depth=2.77m	P.C.	11				
5	Service Connection	P.C.	15				
Drainage & Irrigation Pipe							
6	100mm Φ uPVC Pipe & sprinkler	m	488				
7	50mm Φ uPVC Pipe & sprinkler	m	620				
Total to Division Summary							

Subcomponent-3-3: Sewage Treatment System
 Section 3350: Mechanical Work

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section U3-3350:MECHANICAL EQUIPMENT</u>							
GRIT CHAMBER / PUMP STATION							
1	MV-101.main inlet valve	No.	1				
2	SC-102. Screen Removal System	No.	1				
3	MG-103. Inlet Gate	No.	1				
4	SC-104A. Fine Screen A	No.	1				
5	SC-104B. Fine Screen B	No.	1				
6	MG-105. Outlet Gate	No.	1				
7	PU-201. Row water pump	No.	1				
8	MX-202. Mixer for Equalization tank	No.	1				
9	MG-203. Pumping well Connecting Gate	No.	1				
DISTRIBUTION CHAMBER							
10	NW-204. Manual Operated Adjustable	No.	1				
OXIDATION DITCH							
11	AE-301. Aerator	No.	1				
12	HO-302. Hoist for Aerator	No.	1				
13	MW-303. Inlet Distribution weir	No.	1				
14	NW-304. Outlet Distribution weir	No.	1				
FINAL CLARIFIER							
15	SC-401. Clarifier	No.	1				
16	PU-402. Return Sludge Pump	No.	1				
17	PU-403.Waste Sludge Pump	No.	1				
18	MV-404. Sludge Outlet Valve	No.	1				
19	MG-405. Isolate Gate for Sludge Pumping Well	No.	1				
DISINFECTION TANK							
20	UU-501 Utility Water Supply Unit (1)	No.	1				
21	UU-501 Utility Water Supply Unit (2)	No.	1				
22	IS-502. Treated Water Inlet Screen	No.	1				
23	CL-601. Chlorine Solution Tank/Pump/Mixer	No.	1				
24	MV-602. Disinfection Tank Inlet Valve and By-pass Valve	No.	1				
SLUDGE THICKENER							
25	SC-701. Thickener	No.	1				

Subcomponent-3-3: Sewage Treatment System
Section 3350: Mechanical Work

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
26	MV-702. Thickened Sludge Outlet Valve	No.	1				
27	PU-703.Thickened Sludge Pump	No.	1				
28	HO-801.Hoist for Pump and Scum Container	No.	1				
	PIPING MATERIAL						
29	PM-901. PIPING MATERIAL	No.	1				
	Total to Subcomponent Summary						

Subcomponent-3-3: Sewage Treatment System

Section 3370: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section U3-3370: ELECTRICAL EQUIPMENT</u>							
1	Motor Control Center (MCC)	No.	1				
2	UPS	No.	1				
3	Instrumentation Panel	No.	1				
4	Equalization Tank Level	No.	2				
5	Inlet Flow	No.	1				
6	Return Sludge Flow	No.	1				
7	Excess Sludge Flow	No.	1				
8	Effluent Flow	No.	1				
9	Thickened Sludge Flow	No.	1				
10	Level Switch	No.	7				
11	Pressure Switch	No.	1				
12	Materials	Set	1				
Total to Subcomponent Summary							

BILL OF QUANTITIES
OF
COMPONENT-4:
B: BUILDING WORKS

**BILL OF QUANTITIES
OF**

SUBCOMPONENT-4-B1:

Passenger Terminal Building

Subcomponent-4-1: (B1) Passenger Terminal Building

Subcomponent-4-B1 Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent 4- 1: (B1) Passenger Terminal Building (PTB)						
	Subcomponent Summary						
	Section B1-4000 Series: Architectural Works						
	Section B1-5000 Series : Mechanical Works						
	Section B1-6000 Series : Electrical Works						
	Section B1-7000 Series : Special Equipment						
	Total to Component Summary						

Subcomponent-4-1: (B1) Passenger Terminal Building

Section 4000 Series: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<p><u>Section B1-4000 series : Architectural</u></p> <p style="text-align: center;"><u>Series Summary</u></p> <p>Section B1-4110 : Earthwork</p> <p>Section B1-4120 : Termite Control</p> <p>Section B1-4130: Soil Improvement</p> <p>Section B1-4220 : Concrete Works</p> <p>Section B1-4230 : Structural Steelworks</p> <p>Section B1-4315 : Blockworks</p> <p>Section B1-4320 : Waterproofing</p> <p>Section B1-4330 : Roofing Cladding and Facades</p> <p>Section B1-4340 : Windows/Doors</p> <p>Section B1-4350 : Metalworks</p> <p>Section B1-4360 : Woodworks and Partitions</p> <p>Section B1-4370 : Finishes</p> <p>Section B1-4380 : Miscellaneous Fittings and Furniture</p> <p>Section B1-4390 : Signage</p> <p style="text-align: right;">Total to Subcomponent Summary</p>							
<p><u>Section B1-4110 : Earthwork</u></p> <p><u>Normal Excavation</u></p> <p>1 Pits m³ 2,783</p> <p>2 Trenches m³ 349</p> <p><u>Excavation in Rock</u></p> <p>3 Pits m³ 557</p> <p>4 Trenches m³ 70</p> <p><u>Filling</u></p> <p>5 Backfilling to excavations m³ 3,151</p> <p><u>Filling/Compaction</u></p> <p>6 Gravel bed; 100mm thick m² 8,686</p> <p>7 Gravel bed; 50mm thick to external sidewalk (32/)MD m² 2,955</p> <p>8 Polyethylene waterproof membrane m² 8,686</p> <p style="text-align: right;">Total to Series Summary</p>							
<p><u>Section B1-4120 : Termite Control</u></p> <p>1 Soil treatment; to pits, trenches ; surface of backfill and gravel beds m² 23,112</p> <p style="text-align: right;">Total to Series Summary</p>							
<p>Section B1-4130: Soil Improvement</p>							

Subcomponent-4-1: (B1) Passenger Terminal Building

Section 4000 Series: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
1	Grout Injection including all required equipment, materials, labor and testing	kg	4,000				
Total to Series Summary							
<u>Section B1-4220: Concrete Works</u>							
<u>In-situ Concrete</u>							
<u>Plain Concrete Class B3 (180) in :</u>							
1	Blinding layer; 50 mm thick	m ³	478				
2	Blinding layer; 50 mm thick to external sidewalk (32/MD)	m ³	148				
<u>Reinforced Concrete Class B1 (280) in :-</u>							
3	Column foundations	m ³	414				
4	Ground beams	m ³	93				
5	Columns	m ³	515				
6	Beams	m ³	607				
7	Suspended slabs	m ³	464				
<u>Reinforced Concrete Class B2 (210) in :</u>							
8	Ground floor slab	m ³	1,312				
9	Base slab to external sidewalk (32/MD)	m ³	443				
<u>Formwork</u>							
<u>Class F1 Formwork in:</u>							
10	Column foundations	m ²	1,711				
11	Ground beams	m ²	717				
12	Columns	m ²	3,691				
13	Beams	m ²	4,494				
<u>Class F3 Formwork in:</u>							
14	Suspended slabs	m ²	3,703				
<u>Reinforcement</u>							
<u>Reinforcement bars - (Grade 60 = 415 N/mm²)</u>							
15	10 mm ~ 12mm	kg	166,522				
16	16 mm ~ 28mm	kg	299,894				
17	Polystyrene Isolation Joint with sealant Network Equipment and peripheral	m	731				
Total to Series Summary							
<u>Section B1-4230: Structural Steelwork</u>							
Material, fabrication, anti-corrosive shop primer paint, erection, touch-up primer paint and all necessary associated works.							
<u>Main Roof</u>							
1	Built-up Section (Rolled Shape Section)	kg	247,239				
2	Angle Section	kg	97,174				
3	Hollow Section	kg	20,103				
4	Channel Section	kg	96,660				
5	Round Bar	kg	10,441				
6	Connection Plate	kg	47,412				

Subcomponent-4-1: (B1) Passenger Terminal Building
Section 4000 Series: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Service Stair</u>							
7	Rolled W-Section	kg	32				
8	Angle Section	kg	47				
9	Channel Section	kg	1,123				
10	Circular Hollow Section	kg	48				
11	Plates	kg	63				
12	Steel grating treads and risers; galvanized	kg	618				
<u>Steel Sunscreen</u>							
13	Built-Up Section	kg	52,013				
14	Connection Plates	kg	2,675				
<u>Covered Walkway</u>							
15	Square Hollow Section	kg	819				
16	B. I. Pipe Schedule 80	kg	117				
17	Connection Plates	kg	268				
<u>External Miscellaneous Structure</u>							
18	Square Hollow Section	kg	118				
19	Plates	kg	45				
20	Steel gratings, galvanized	kg	299				
Total to Series Summary							
<u>Section B1-4315: Blockwork</u>							
<u>Hollow Concrete Block</u>							
1	Wall; 150mm thick	m ²	4,059				
2	Back wall for toilet coping; 100mm thick (7B/MD)	m ²	102				
<u>Reinforced Concrete Class B2 in Lintels and Stiffeners</u>							
3	Lintel beam above opening; 150 x 200mm including formwork and reinforcement	m	262				
4	Stiffener beam; 150 x 300mm including formwork and reinforcement	m	1,895				
5	Stiffener column; 150 x 300mm including formwork and reinforcement	m	840				
Total to Series Summary							
<u>Section B1-4320: Waterproofing</u>							
<u>Waterproofing Membrane</u>							
<u>Built-up Bitumen Felt Water Proofing System; WP-1</u>							
1	Waterproofing System with insulation applied to surface (1/RD)	m ²	3,398				
2	Waterproofing System applied to parapet wall (1/RD)	m ²	183				
3	50mm Thick protection concrete with 4mm diameter at 100mm welded wire mesh steel trowel	m ²	3,398				

Subcomponent-4-1: (B1) Passenger Terminal Building

Section 4000 Series: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	finish (1/RD)						
4	25mm Wide contraction gap w/ sealant in protection concrete (1/RD)	m	954				
	<u>Urethane Waterproofing Coating; WP-3 to :</u>						
5	Toilets, Shower room, Pantry; horizontal	m2	635				
6	Toilets, Shower room, Pantry; vertical	m2	125				
	<u>Underground External Waterproofing; WP-5 to :</u>						
7	Trench and dropped slab	m2	106				
	Total to Series Summary						
	<u>Section B1-4330 : Roofing Cladding and Facades</u>						
	<u>Main Roof</u>						
1	0.8mm Thick double skin steel plate pre-painted galvalume fluorine resin coated; curved including foil faced insulation ; 100mm thick	m ²	8,738				
2	0.8mm Thick steel roof gutter ; 1403 mm girth	m	261				
3	0.8mm Thick steel roof gutter; 719mm girth	m	670				
4	0.8mm Thick roof closure to curved roof; 488mm girth	m	104				
5	0.8mm Thick end Flashing; 314mm girth	m	104				
6	Basket strainer roof drain outlet 200 mm diameter (10/RD)	No.	20				
7	Basket strainer roof drain outlet 150 mm diameter (10/RD)	No.	10				
8	Basket strainer roof drain outlet 100 mm diameter (10/RD)	No.	6				
	Total to Series Summary						
	<u>Section B1-4340: Windows/Doors</u>						
	<u>CURTAIN WALLING SYSTEMS; as shown on the Drawings, including aluminum framing and supports, with all related fixing and components, finishings, glass, antishatter film, gaskets, ironmongery, sealants</u>						
1	1/AW 3450 x 8360 mm	No.	6				
2	2/AW 3450 x 3975 mm including double door 1930 x 2256 mm	No.	1				
3	3/AW 3450 x 8750 mm including double door 1950 x 2247 mm	No.	12				
4	4A/AW 2250(1150) x 8750 mm	No.	2				
5	5/AW 3450(2329) x 8750 mm	No.	3				
6	6/AW 2329(3450) x 8750 mm	No.	3				
7	7/AW 2252(1150) x 8750 mm	No.	2				
8	8/AW 2392 x 8750 mm	No.	2				
9	11/AW 1550 x 13090 mm	No.	1				
10	12/AW 7997 x 2100 mm	No.	2				
11	14/AW 2252(1150) x 8750 mm	No.	2				

Subcomponent-4-1: (B1) Passenger Terminal Building**Section 4000 Series: Architectural Works**

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
12	15/AW 3450(2329) x 8750 mm	No.	3				
13	16/AW 2329(3450) x 8750 mm	No.	3				
14	17/ AW 2252(1150) x 8360 mm	No.	2				
15	18/ AW 3450 x1663 mm	No.	1				
16	19/AW 3450 x 6297 mm	No.	1				
17	20/AW 1150 x 8360 mm	No.	2				
	<u>ALUMINIUM GLAZED SCREENS; as shown on Drawings, including frames, all related fixing components, components, glass, beads and gaskets, ironmongery, thresholds, frame set and fixing lugs, mortar bedding, filling and sealants</u>						
18	1/AS 3450 x 8360 mm	No.	4				
19	2/AS 3450 x 8500 mm	No.	1				
20	3/AS 3450 x 5625	No.	1				
21	4AS 3450 x 8360 mm	No.	2				
22	5/AS 3450 x 26360 mm	No.	1				
23	6/AS 2700 x 8360 mm	No.	1				
24	7/AS 2392 x 8750 mm	No.	2				
25	8/AS 3450 x 8360 mm	No.	1				
	<u>WOOD DOOR SETS: flush type ; as shown on door & window schedule drawing; including all ironmongery, louvers, openings, wood frames and beads and all fixing lugs, mortar bedding/filling and sealants</u>						
26	1/WD 900 x 2100 mm	No.	13				
27	2/WD 600 x 2100 mm	No.	1				
28	3/WD 2015 x 2100 mm w/ fixed glass	No.	17				
29	4/WD 2015 x 2100 mm w/ fixed glass	No.	2				
30	5/WD 1890 x 2700 mm	No.	6				
	<u>STEEL DOOR SETS: flush type as shown on door & window schedule drawing; including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/ filling</u>						
31	1/SD 900 x 2100 mm	No	7				
32	2/SD 900 x 2100 mm	No	3				
33	3/SD 600 x 2100 mm w/ louver 400 x 400	No	12				
34	4/SD 520 x 2100 mm	No	8				
35	5/SD 900 x 2100 mm	No	6				
36	6/SD 600 x 2100 mm	No	5				
37	7/SD 1600 x 2100 mm	No	4				
38	8/SD 1600 x 2100 mm	No	1				

Subcomponent-4-1: (B1) Passenger Terminal Building
Section 4000 Series: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
39	9/SD 1300 x 2255 mm	No	1				
40	10/SD 1600 x 2100 mm	No	4				
41	11/SD 900 x 1730 mm	No	4				
42	12/SD 625 x 1440 mm	No	1				
	<u>ALUMINIUM DOORS; as shown on Drawings, including glazing, beads, gaskets, ironmongery, thresholds, frame set and fixing lug, mortar bedding/filling and sealants</u>						
43	1/AD 1880 x 2700mm	No.	1				
	<u>ALUMINIUM WINDOWS; as shown on Drawings, including glazing, beads, gaskets, ironmongery, thresholds, frame set and fixing lug, mortar bedding/filling and sealants</u>						
44	9/AW 2000 x 1200 mm	No.	3				
45	10/AW 3420 x 1000 mm	No.	1				
	<u>WOODEN LOUVERS : fixed type ; including frames, frame set and fixing lug, sub-frames, stainless steel brackets, stainless steel flat bar mid supports, stainless steel rod, related fixings</u>						
46	1/LV 2252(1150) x 8750mm	No.	20				
47	2/LV 3450(2252) x 8750 mm	No.	16				
48	3/LV 3450 (2252)x 8750 mm	No.	16				
49	4/LV 2252(1150) x 8750 mm	No.	20				
50	5/LV 2392 x 8750 mm	No.	8				
51	6/LV 1150 x 8750 mm	No.	60				
	<u>ALUMINIUM LOUVERS : fixed type ; effective rate @ 40%; including frames, frame set and fixing lug, mortar bedding/filling and sealants and complete with insect screens and sub-frames</u>						
52	1/ML 1102 x 900 mm	No.	9				
53	2/ML 977 x 1862 mm	No.	3				
54	3/ML 1863x 1102 mm	No.	1				
55	4/ML 500 x 602 mm	No.	3				
56	5/ML 980 x 1102 mm	No.	2				
57	6/ML 1862 x 2318 mm	No.	4				
58	7/ML 1000 x 2000 mm	No.	2				
59	8/ML 500 x 500 mm	No.	1				
60	9/ML 800 x 1400 mm	No.	1				
61	10/ML 800 x 850 mm	No.	1				
62	11/ML 1000 x 1500 mm	No.	1				
63	12/ML 1900 x 2000 mm	No.	1				

Subcomponent-4-1: (B1) Passenger Terminal Building**Section 4000 Series: Architectural Works**

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<u>INSECT SCREENS: fixed type including aluminum frames and support systems with all related fixing, components and finishings, frame set and fixing lug, mortar bedding/filling and sealants</u>						
64	1/MS 2252(1150) x 8750 mm	No.	8				
65	2/MS 3450(2250) x 8750 mm	No.	7				
66	3/MS 3450(2250) x 8750 mm	No.	7				
67	4/MS 2252(1150) x 8750 mm	No.	8				
68	5/MS 2392 x 8750 mm	No.	2				
	<u>SECURITY ROLLER SHUTTER : as shown on Drawings; including motors, pulleys, chains, locks and ironmongery, frames, fixing lugs, mortar bedding and sealants, electrical connection and control interface with the BHS system</u>						
69	RS/ 1100 x 1200 mm	No	1				
70	RS/ 1400 x 1500mm	No	4				
71	RS/ 1400 x 2160 mm	No	1				
72	RS/ 1600 x 2160 mm	No	1				
	Total to Series Summary						
	<u>Section B1-4350: Metalwork</u>						
	<u>Expansion Joint Assemblies</u>						
1	2A/EJD at Column/Beam (int/ext)	m	19				
2	2B/EJD at Ceiling	m	9				
3	2C/EJD at Wall	m	28				
4	4/B1-4300-14 Expansion joint at Roof deck, incl st. steel flashing, foam filling and expansion joint in rc soffit	m	18				
	<u>Roof Drain Outlet (10/RD)</u>						
5	200mm Diameter	No.	20				
6	150mm Diameter	No.	10				
7	100mm Diameter	No.	6				
	<u>Stainless Steel Handrails, Guard Rails and Railings</u>						
8	Floor mounted handrail (11B/MD)	m	74				
9	Floor mounted handrail incl. wicket gate (B1-4300-64)	m	22				
10	Wall and glazing protection rail (4/B1-4300-61)	m	123				
11	Trolley corral Type A (B1-4300-63)	m	32				
12	Trolley corral Type B (B1-4300-63)	m	19				
13	Handrail for Handicapped Toilet Type A (Fixed)	No.	6				
14	Handrail for Handicapped Toilet Type B (Hinged)	No.	6				
15	Handrail for Urinal (1 set = 2 handrails)	No.	6				
16	Column protector; 80x80x3 mm, h=1000 mm (B1-4300-63)	No.	138				

Subcomponent-4-1: (B1) Passenger Terminal Building

Section 4000 Series: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
17	15mm stainless steel strip separator	m	15				
18	Stainless steel U channel recessed beads 20x20x2mm to external walls, curved to suit incl. setting profiles and all related fixings	m	776				
19	Stainless Steel maintenance pipe including fixings and accessories, diameter 90 mm, t=3mm.	m	756				
<u>Galvanized Iron Handrails, Guard Rails and Railings</u>							
20	Floor mounted handrails (Elevation A B1-4300-31)	m	16				
21	Handrailing to void at room 169 (detail same as 19 above)	m	8				
22	Hand railing to service stairs B1-4300-31 Stair details 1/2	m	55				
23	Guard post around columns (25/MD)	No.	23				
24	Galvanized steel maintenance ladder (B1-4300-14) ; 3,432mm high	No.	10				
25	Raised floor system	m ²	137				
26	Trench pit cover support 6mm steel plate to ceramic tiles; w=276mm	m	42				
27	Trench pit cover seat (32mmx32mm x 3mm Angle Bar) w/ primer paint finish including dowel Support (10mm diameter bar) w/ primer paint finish	m	42				
28	Trench pit cover seat (50mmx50mm x 4mm Angle Bar) w/ primer paint finish including Trench pit cover Support (38mmx38mm x 3mm Angle Bar) w/ primer paint finish	m	35				
29	Trench pit cover (W<600 ; Mild Steel Grating)	m	35				
30	Catch Basin cover support (32mmx 32mm x 3 mm Angle bar) w/ primer paint including dowel support	No	6				
31	Flex beam to BHS area wall protection	m	33				
<u>Other Miscellaneous Metal</u>							
32	Aluminum channel recessed beads 20x20x2mm deep to internal walls, curved to suit incl. setting profiles and related fixings	m	874				
33	Aluminum shadow gaps, between drywall bulkheads and structure 35x20x2 mm, incl all related fixings	m	209				
Total to Series Summary							
<u>Section B1-4360: Woodwork and Partition</u>							
<u>Miscellaneous Wood Works</u>							
1	Wooden Trellis ; w=4800mm	m	93				
2	ditto, but; w = 4000mm	m	75				
3	ditto, but; w= 3900mm	m	20				
4	Blind boxes (B1-4300-58)	m	49				
<u>Dry Partitioning; 12mm Thick Gypsum Board double layer faced partition with insulation on light gauge steel framing (W-7, 1/MD)</u>							
5	Drywall partitions faced both sides (3A/MD)	m ²	371				

Subcomponent-4-1: (B1) Passenger Terminal Building**Section 4000 Series: Architectural Works**

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
6	Ceiling perimeter enclosures, faced both sides	m2	62				
7	Ceiling closures above aluminum screens, faced both sides	m2	139				
8	Bulkhead enclosures, (single face, no insulation)	m2	397				
9	Roof Enclosure: 15 mm calcium silicate board with light gauge steel framing with insulation, sealed to prevent airflow, nominal height 225 mm	m	720				
	<u>Cubicles; including folding doors, partitions and all necessary fittings and ironmongery (4/B1-4300-40)</u>						
10	One unit Cubicle	No.	3				
11	Two unit Cubicle	No.	1				
12	Four unit Cubicle	No.	1				
13	Five unit Cubicle	No.	11				
	<u>Kitchen, pantry, counters and cabinets as shown on the drawings: 19 mm. thick MDF panel with high pressured laminate, including concrete slab, all necessary framing, fixings, fittings and ironmongery</u>						
14	Floor mounted: 3040x600x850 high	No.	1				
15	Ditto: 2920x600x850mm high	No.	1				
16	Wall mounted: 3040x300x800 high	No.	1				
17	Ditto: 2920x600x800mm high	No.	1				
18	<u>Ticketing and cashier counters as shown on the drawings: 19 mm. thick MDF panel with high pressured laminate, including concrete slab, complete with lockable drawerblocks, all necessary framing, fixings, fittings and ironmongery</u>						
19	2189x600x720 high	No.	6				
20	1710x600x720mm high	No.	2				
	Total to Series Summary						
	<u>Section B1-4370: Finishes</u>						
	<u>Provisional Sum</u>						
1	Include the Provisional Sum of two million five hundred thousand Peso for office furniture	sum	1				
2	Include for the use of Contractor's resources, indirect cost, overheads and profit for expenditures under the Provisional Sum (rate to be inserted by the Contractor - rate shall not exceed 5%)	sum					
	<u>In-situ Finishes</u>						
	<u>Internal Finishes</u>						
3	Cement render to floor; 42mm thick, to receive ceramic tiles	m ²	1,390				
4	Cement render to floor; 50mm thick, to receive damp proof paint (P-6)	m ²	137				
5	Cement render to floor; 50mm thick, including surface hardener (F-11)	m ²	1,422				

Subcomponent-4-1: (B1) Passenger Terminal Building**Section 4000 Series: Architectural Works**

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
6	Cement render to wall; 14mm thick, to receive ceramic tiles	m ²	1,105				
7	Cement render; 20 mm thick, to walls; over waterproofing, reinforced with metal lath	m ²	483				
8	Cement render to wall; 20mm thick, to receive glasswool board insulation	m ²	126				
9	Cement render to wall, column and beams; 20mm thick, to receive paint (P-1/partially P-4)	m ²	5,061				
	<u>External Finishes</u>						
10	Cement render to walls, beams, parapets and columns, 20mm thick, to receive paint (P-4)	m ²	1,677				
11	Cement render to sidewalk 30mm thick (29/MD)	m ²	2,955				
	<u>Rigid Tile/Slab/Block</u>						
	Granite						
12	Granite stone to toilet wall coping; 150mm x 20mm thick (F2-7/MD) including cement render bedding; 30mm thick	m	85				
	Granite stone to fixed counters 20mm thick, including facia, cement render bedding						
13	2190 x 400mm	No	6				
14	1710x400mm	No	2				
	Granite stone to kitchen and pantry counters, 20 mm thick, including facia, splashboards, cement render bedding 20mm with cutout to receive stainless steel sink.						
15	3040x600mm	No	1				
16	2920x600mm	No	1				
	<u>Ceramic Tile Covering</u>						
17	Ceramic tiles to floor 600 x 600 x 8mm (F14), including cement render bedding	m ²	6,688				
18	Ceramic tiles to skirting; 300mm high x 6 mm thick(S-1) including cement render bedding	m	638				
19	Ceramic tiles to floors; 300 x 300 x 8mm thick (F-3), including cement render bedding	m ²	1,390				
20	Ceramic tiles to skirting; 100mm high x 6mm thick including cement render bedding	m	745				
21	Ceramic tiles to walls; 300 x 300 x 6mm thick (W-2) (Co-2)	m ²	1,105				
	<u>Flexible Tile/Sheet</u>						
22	Anti-static vinyl tiles to raised floor; 500 x 500 x 2mm thick	m ²	137				
23	Polyvinyl soft tile to skirting; 100mm high x 2mm thick (S-4)	m	36				
24	Precovered glass wool board; to walls (W-8)	m ²	126				
	<u>Suspended Ceilings; including supports and suspension system</u>						
25	600 x 600 x 15mm Thick acoustic rockwool ceiling system (C-1)	m ²	732				

Subcomponent-4-1: (B1) Passenger Terminal Building**Section 4000 Series: Architectural Works**

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
26	Double ceiling system: t=12 colored acoustic rockwool ceiling board on t=9 water-resistant gypsum board with paint perimeter wall trims (C-2)	m ²	57				
27	Aluminum linear ceiling system;150mm wide (C-7), incl all fixings and fixtures.	m ²	760				
28	Wood battens varnish finish; 200mm wide, 25mm thick to curved ceiling (C-12)	m ²	7,797				
29	Aluminum Baffle ceiling; w = 13; h = 122 (C14) incl all fixings and fixtures, suspensions system and black painted substrate, slab, beams, ducts, piping, cable trays and other visible elements.	m ²	1,719				
	<u>Synthetic resin emulsion paint (P-1) to:</u>						
30	Cement rendered Wall (W3 (Co-3)	m ²	4,398				
31	Fair face concrete ceiling incl. beams (C-15)	m ²	1,352				
32	Fair face concrete columns	m ²	1,681				
33	Gypsum board wall (W7) (Co-7)	m ²	667				
	<u>Synthetic resin mixed Paint (P-2) type A to:</u>						
34	Wood doors (type-1)	m ²	124				
	<u>Synthetic resin mixed Paint (P-3) to:</u>						
35	Steel doors	m ²	192				
36	Steel column guard post (150mm diameter x 1,000mm high)	m ²	17				
	<u>Synthetic resin multi layer coating (P-4) to:</u>						
37	Beams (BMC)	m ²	737				
38	Columns (CNC)	m ²	623				
39	Walls(WLC), incl walls behind louvers	m ²	1,066				
40	Water resistant gypsum board ceiling	m ²	57				
	<u>Clear Lacquer (P-5/P-5A)</u>						
41	Wood Battens ceiling (C12)	m ²	7,797				
42	Wooden Trellis	m ²	1,624				
43	Wooden Louvers	m ²	3,228				
	<u>Epoxy-resin Floor Paint (P-6) to :</u>						
44	Concrete roof deck	m ²	3,398				
45	Concrete trenches	m ²	113				
46	Concrete floor	m ²	163				
	<u>Concrete Dustproofer (P-6A) to:</u>						
	Concrete floors (Concessions and Roof voids)	m ²	1,664				
	<u>Fluorine-resin Enamel Coating (P-8) to :</u>						
47	Steel Sunscreen	m ²	1,210				
48	Structural steel surface (curved rafter)	m ²	2,869				
49	Exposed steel roof beam	m ²	3,290				
50	Exposed square hollow steel column	m ²	331				
	Total to Section Summary						

Subcomponent-4-1: (B1) Passenger Terminal Building

Section 4000 Series: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section B1-4380: Miscellaneous Fixtures and Furniture</u>							
<u>Miscellaneous Items</u>							
1	Venetian Blinds	m ²	60				
2	Clear mirror	m ²	59				
3	Laminated Glass to external canopies and airside walkways 8mm+1.52mm PVB+8mm+1.52 mm PVB+8mm	m ²	729				
<u>Granite stone to countertop lavatories 20 mm. thick (Polished) including its fascia, splashboard and steel support structure</u>							
Six unit countersunk lavatory							
4	6550x 600 mm Deep	No.	1				
5	5000 x 600 mm Deep	No.	4				
6	4800 x 600 mm Deep	No.	1				
Four unit countersunk lavatory							
7	4560 x 600 mm Deep	No.	1				
8	3400 x 600 mm Deep	No.	6				
Two unit countersunk lavatory							
9	2400 x 600 mm Deep	No.	1				
One unit countersunk lavatory							
10	1230 x 600 mm Deep	No.	1				
<u>Granite stone to urinal portions, 20 mm thick (Polished) including stainless steel brackets and all necessary accessories</u>							
	400x800x20 mm	No.	25				
11	Glass Screens Protection Markings (Self Adhesive Film)	m	202				
12	Tactile Paving	m	144				
13	Building Marker ; 1,650mm high x 1,800mm wide x 300mm (400) deep, surface mounted with black marble and brass plaque fixed to concrete wall (18/MD)	No.	1				
<u>Furniture</u>							
<u>Public Furniture</u>							
PF-01 Gate Lounge Seats							
14	A- 3 Seater (External)	No.	18				
15	B-5 Seater (Internal)	No.	74				
16	C-3 Seater (Internal)	No.	28				
17	PF-02 Workstation	No.	8				
18	PF-03 Writing Shelf	No.	6				
19	PF-04 Trolley	No.	300				
20	PF-05 Waste Bins	No.	25				
21	PF-06 Baggage inspection Counter w/ stainless steel bench	No.	3				
22	PF-07 Information Counter	No.	1				
<u>PF-08 Check-in Counter</u>							

Subcomponent-4-1: (B1) Passenger Terminal Building
Section 4000 Series: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
23	Curved Counter (Left)	No.	8				
24	Curved Counter (Right)	No.	8				
25	Straight Counter	No.	1				
26	Special Assistance Counter	No.	1				
27	PF-09 Arrival Counter w/stainless steel bench	No.	2				
28	PF-10 Passport Control Counter	No.	4				
29	PF-11 Custom Check Counter w/stainless steel bench	No.	2				
30	PF-12 Gate Counter (curved left)	No.	4				
31	PF-13 Gate Counter (curved right)	No.	4				
32	PF-14 Staff chair , mid back w/ Armrest	No.	58				
	<u>Pavement</u>						
33	Concrete curbs (28A/MD)	m	221				
	Total to Series Summary						
	Section B1-4390: Signage						
	<u>Building Sign</u> Supply and install LED signs complete with all necessary support frame, fixings ,fittings and finishing, all electrical works including tubes, finishing, all electrical works						
1	1200mm high x 10465mm wide (BOHOL AIRPORT)	No.	2				
	<u>Visual Sign</u> Supply and install building signage as shown on signage schedule drawing ; complete with necessary fixings and fittings						
2	1-01a Single face; individual cut-out mount type; 600mm H x 4,010mm L All DEPARTURES	No.	2				
3	1-01b Single face; individual cut - out mount type ;468mm H x 5190mm L INTERNATIONAL ARRIVAL	No.	1				
4	1-01c Single face; individual cut - out mount type; 468mm H x 4470mm L DOMESTIC ARRIVAL	No.	1				
5	1-02a Single face; individual cut-out mount type; 468mm H x 2,105mm L CHECK-IN	No.	2				
6	1-02b Single face; individual cut-out mount type; 468mm H x2,830mm L ALL GATES	No.	2				
7	1-03 Single face; individual cut-out mount type; 468mm H x 6340mm L 4 GATE 4 (5, 6, 7)	No.	4				
8	1-04 Single face; individual cut-out mount type; 468mm H x 1266mm L BELT 1	No.	2				
9	1-04a Single face; individual cut-out mount type; 468mm H x 1340mm L BELT 2	No.	2				
10	1-05 Double face; bracket type; 600mm H x 2240mm L INTERNATIONAL ARRIVAL 4; illuminated type	No.	1				
11	1-05a Double face; bracket type; 600mm H x 2240mm L DOMESTIC ARRIVAL 4; illuminated type	No.	1				

Subcomponent-4-1: (B1) Passenger Terminal Building**Section 4000 Series: Architectural Works**

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
12	1-05b Double face; bracket type; 600mm H x 2240mm L All Departures 4; illuminated type	No.	1				
13	1-06 Single face; pipe mounted type; 400mm H x 1310mm L BELT 1; illuminated type	No.	1				
14	1-06a Single face; pipe mounted type; 400mm H x 1355mm L BELT 2; illuminated type	No.	1				
15	1-07 Double face; bracket type; 500mm H x 2255mm L ALL GATES; illuminated type	No.	2				
16	1-07a Single face; wall mount type; 300mm H x 1870mm L BAGGAGE CLAIM; illuminated type	No.	1				
17	1-08 Single face; pipe mount type; 450mm H x 1780mm L ALL GATES; illuminated type	No.	1				
18	1-08a Single face; pipe mount type; 300mm H x 1845mm L SECURITY CHECK; illuminated type	No.	1				
19	1-09 Single face; pipe mount type; 300mm H x 1815mm L CUSTOM CHECK; illuminated type	No.	1				
20	1-10 Single face; pipe mount type; 300mm H x 740mm L EXIT ; illuminated type	No.	6				
21	1-11 Single face; pipe mount type; 300mm H x 1142mm L NO EXIT ; illuminated type	No.	2				
22	1-12 Double face; bracket type; 300mm H x 1138mm L TOILETS; illuminated type	No.	6				
23	1-12a Single face; pipe mount type; 300mm H x 1398mm L TOILETS; illuminated type	No.	1				
24	1-13 Single face; bracket type; 500mm H x 1300mm L OVERSIZED BAGGAGE; illuminated type	No.	2				
25	1-14 Double face; bracket type; 300mm H x 1075mm L BAGGAGE RECONCILIATION; illuminated type	No.	1				
26	1-15 Double face; bracket type; 300mm H x 695mm L LOST&FOUND; illuminated type	No.	1				
27	1-16 Double face; bracket type; 300mm H x 740mm L HEALTH CONTROL; illuminated type	No.	1				
28	1-17 Single face; stick on mount type; 150mm H x 250mm L	No.	81				
29	1-18 Single face; stick on mount type; 200mm H x 400mm L	No.	6				
30	1-19 Single face; stick on mount type; 200mm H x 400mm L	No.	6				
31	1-20 Single face; stick on mount type; 200mm H x 400mm L	No.	6				
32	1-21 Single face; stick on mount type; 200mm H x 200mm L	No.	10				
33	1-22 Single face; stick on mount type; 200mm H x 200mm L	No.	3				
34	1-23 Single face; stick on mount type; 200mm H x 200mm L	No.	14				
35	1-24 Single face; pipe mount type; 500mm H x 500mm L NO.1 TO 18; illuminated type	No.	18				
36	1-25 Single face; individual cut-out mount type; 468mm H x 1465mm L GATE 4 (5, 6, 7)	No.	4				

Subcomponent-4-1: (B1) Passenger Terminal Building

Section 4000 Series: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
37	1-26 Single face; stick on mount type; 400mm H x 1600mm L TEXT+LOGO TO BE DETERMINED; illuminated type	No.	6				
38	1-27 Single face; bracket type; 300mm H x 1000mm L variable message sign to counter (LED)	No.	8				
39	1-28 Single face; pipe mount type; 300mm H x 1000mm L variable message sign over counter (LED)	No.	4				
40	1-29 Single face; pipe mount type; 300mm H x 1200mm L TEXT + LOGO TO BE DETERMINED ; illuminated type	No.	4				
41	1-30 Double face; bracket type; 300mm H x 1500mm L TEXT + LOGO TO BE DETERMINED; illuminated type	No.	1				
Total to Series Summary							

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section 5000 series : Mechanical Works						
	Series Summary						
	Section 5100 : Sanitary and Plumbing						
	Section 5200 : Ventilation and Air Conditioning						
	Section 5300 : Fire Protection						
	Total to Subcomponent Summary						
	Section 5100 : Sanitary and Plumbing						
	Sanitary Fixtures						
1	WC-1 Water closet (FV)	No.	59				
2	WC-2 Water closet for handicapped	No.	6				
3	Water closet handrail for handicapped	No.	6				
4	WC-3 Water closet (FV)	No.	7				
5	UR-1 Urinal	No.	25				
6	UR-2 Urinal	No.	5				
7	UR-3 Urinal	No.	4				
8	LAV-1 Under counter type lavatory	No.	59				
9	LAV-2 Lavatory for handicapped	No.	6				
10	Laboratory handrail for handicapped	No.	6				
11	LAV-3 Under counter type lavatory	No.	7				
12	LAV-4 Wall Hanged type lavatory	No.	4				
13	SS-1 Service sink (Slop Sink)	No.	7				
14	Faucet for pantry sink	No.	2				
15	SHW-1 Shower Set	No.	3				
16	Hand Dryer	No.	12				
17	TPH-1 Toilet paper holder Double Type	No.	65				
18	TPH-2 Toilet paper holder Single Type	No.	7				
19	Paper Towel Dispenser	No.	12				
20	Sop Holder	No.	3				
21	Baby Sheet	No.	6				
	Water Distribution System						
	Piping Works						
	Pipeworks, Polyvinyl chloride pipe (High Density)						
	Incl, Fittings, Hangers, Supports, Sleeves, Inserts, Excavation, Back Filling and Accessories.						
	Above Ground						
22	20 mm diameter	m	223				
23	25 mm diameter	m	203				
24	32 mm diameter	m	296				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
25	40 mm diameter	m	88				
26	50 mm diameter	m	174				
27	75 mm diameter	m	65				
28	100 mm diameter	m	84				
29	150 mm diameter	m	114				
	Under Ground Incl, Fittings, Hangers, Supports, Sleeves, Inserts, Excavation, Back Filling, Sand Bedding and Accessories.						
30	32 mm diameter	m	29				
31	50 mm diameter	m	33				
32	150 mm diameter	m	38				
	Gate Valve (JIS 10kg/cm²)						
33	32 mm diameter	No.	25				
34	50 mm diameter	No.	15				
35	100 mm diameter	No.	2				
36	150 mm diameter	No.	1				
	Water Hammer Arrester						
37	20 mm diameter	No.	41				
	Flexible Joint, SUS x 10 kg						
38	150mm	No.	1				
40	100mm	No.	1				
41	32mm	No.	1				
	Hose Bibb						
42	20 mm	No.	7				
	Hot Water Distribution Network Equipment and peripheral Equipment Incl, Hangers, Supports, Sleeves, Inserts and Accessories						
42	Electric Water Heater Single Type	No.	3				
	Hot Water Piping Works						
	Cooper Pipe, Type L Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories						
43	15mm	m	6				
	Gate Valve JIS 10Kg/cm²						
44	15 mm	No.	3				
	Sewer Piping System						
	Pipeworks/Accessories						
	Pipeworks, Polyvinyl chloride Pipe (High density) Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories.						
45	150 mm diameter	m	33				
46	100 mm diameter	m	774				
47	75 mm diameter	m	22				
48	50 mm diameter	m	300				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Fittings						
	Wye & 1/8 bend combination						
49	150 x 100 mm diameter	No.	2				
50	100 x 100 mm diameter	No.	149				
51	100 x 75 mm diameter	No.	8				
52	100 x 50 mm diameter	No.	256				
	1/4 Bend						
53	100 mm diameter	No.	127				
54	75 mm diameter	No.	16				
55	50 mm diameter	No.	160				
	1/8 Bend						
56	100 mm diameter	No.	34				
	P-Trap						
57	50 mm diameter	No.	70				
	Reducer						
58	150 x 100 mm	No.	1				
	Floor / Ground Clean Out						
59	100 mm diameter	No.	58				
	Floor Drains						
60	50 mm diameter	No.	70				
61	Grease trap @ pantry	No.	2				
	Vent Pipes						
	Pipeworks, Polyvinyl coride pipe (VU)						
	Incl, Hangers, Suports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories.						
62	100 mm diameter	m	170				
63	75 mm diameter	m	126				
64	50 mm diameter	m	674				
	Fittings						
	90° Bend						
65	100 mm diameter	No.	48				
66	75 mm diameter	No.	16				
67	50 mm diameter	No.	88				
	90° TEE						
68	100 x 100 mm diameter	No.	8				
69	100 x 75 mm diameter	No.	8				
70	100 x 50 mm diameter	No.	16				
71	75 x 75 mm diameter	No.	16				
72	75 x 50 mm diameter	No.	24				
73	50 x 50 mm diameter	No.	176				
	Reducer						
74	100 x 75 mm diameter	No.	16				
75	75 x 50 mm diameter	No.	16				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Storm Drain						
	Galvanized carbon steel pipe ASTM Sch 40 Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories.						
	Above Ground						
76	250 mm diameter	m	178				
77	200 mm diameter	m	235				
78	100 mm diameter	m	25				
	Under Ground						
	Polyvinyl chloride pipe (VP) Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories.						
79	250 mm diameter	m	279				
80	200 mm diameter	m	103				
81	100 mm diameter	m	44				
	Fittings (GI)						
	90° Bend						
82	100 mm diameter	No.	6				
	45° Bend						
83	250 mm diameter	No.	44				
84	200 mm diameter	No.	8				
	Wye						
85	250 x 250 mm diameter	No.	6				
86	250 x 200 mm diameter	No.	6				
87	200 x 200 mm diameter	No.	4				
88	Catch Basin	No.	17				
	Roof Drain						
89	200 mm	No.	30				
90	100 mm	No.	6				
	Clean Out						
91	200 mm	No.	8				
92	Catch Basin Cover	No.	17				
	Total to Series Summary						
	Section 5200 : Ventilation and Air Conditioning						
	<u>Air Conditioning System</u>						
	<u>Equipment</u>						
	<u>Fan Coil Unit (VRF Indoor Unit)</u> Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.						
1	FCU - 01A to 01B Ceiling Cassette 4-way Cooling Capacity 2.0 Kw	No.	2				
2	FCU - 02A to 02D Ceiling Cassette 4-way Cooling Capacity 2.38 Kw	No.	4				
3	FCU - 03A to 03B Ceiling Cassette 4-way Cooling Capacity 2.0 Kw	No.	2				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
4	FCU - 04 OA Processing Duct Type Cooling Capacity 19.5 Kw	No.	1				
5	FCU - 05A to 05B Ceiling Cassette 4-way Cooling Capacity 4.35 Kw	No.	1				
6	FCU - 06 Ceiling Cassette 4-way Cooling Capacity 6.7 Kw	No.	1				
7	FCU - 07 Ceiling Cassette 4-way Cooling Capacity 6.7 Kw	No.	1				
8	FCU - 08 Ceiling Cassette 4-way Cooling Capacity 6.7 Kw	No.	1				
9	FCU - 09 Ceiling Cassette4-way Cooling Capacity 6.7 Kw	No.	1				
10	FCU - 10 Ceiling Cassette4-way Cooling Capacity 4.7 Kw	No.	1				
11	FCU - 11 Ceiling Cassette 4-way Cooling Capacity 4.7 Kw	No.	1				
12	FCU - 12 Ceiling Cassette 4-way Cooling Capacity 4.7 Kw	No.	1				
13	FCU - 13A to 13B Ceiling Cassette 4-way Cooling Capacity 4.6 Kw	No.	2				
14	FCU - 14 Ceiling Cassette 4-way Cooling Capacity 6.7 Kw	No.	1				
15	FCU - 15 Ceiling Cassette 4-way Cooling Capacity 5.1 Kw	No.	1				
16	FCU - 16A to 16D Ceiling Cassette 4-way Cooling Capacity 2.7 Kw	No.	4				
17	FCU - 17B Ceiling Mount Duct Type Cooling Capacity 24.3 Kw	No.	1				
18	FCU - 17D Ceiling Mount Duct Type Cooling Capacity 22.34 Kw	No.	1				
19	FCU - 18D OA Processing Duct Type Cooling Capacity 24.5 Kw	No.	1				
20	FCU - 19 Ceiling Cassette 4-way Cooling Capacity 2.5 Kw	No.	1				
21	FCU - 20 Ceiling Cassette 4-way Cooling Capacity 2.3 Kw	No.	1				
22	FCU - 21 Ceiling Cassette 4-way Cooling Capacity 2.3 Kw	No.	1				
23	FCU - 22A to 22D Ceiling Cassette 4-way Cooling Capacity 1.98 Kw	No.	4				
24	FCU - 23A to 23D Ceiling Cassette 4-way Cooling Capacity 4.0 Kw	No.	4				
25	FCU - 24A to 24B Ceiling Cassette 4-way Cooling Capacity 2.45 Kw	No.	2				
26	FCU - 17F to 17H Ceiling Mount Duct Type Cooling Capacity 22.34 Kw	No.	2				
27	FCU - 18H OA Processing Duct Type Cooling Capacity 24.5 Kw	No.	1				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
28	FCU - 19A,19C,19E Ceiling Cassette 4-way Cooling Capacity 10.8 Kw	No.	3				
29	FCU - 20E,20F Ceiling Cassette 4-way Cooling Capacity 3.3 Kw	No.	2				
30	FCU - 17J Ceiling Mount Duct Type Cooling Capacity 22.34 Kw	No.	1				
31	FCU - 18K OA Processing Duct Type Cooling Capacity 24.5 Kw	No.	1				
32	FCU - 19G,19I,19K Ceiling Cassette 4-way Cooling Capacity 10.8 Kw	No.	3				
33	FCU - 25 Ceiling Cassette 4-way Cooling Capacity 3.9 Kw	No.	1				
34	FCU - 26A to 26B Ceiling Cassette 4-way Cooling Capacity 2.45 Kw	No.	2				
35	FCU - 27 Ceiling Cassette 4-way Cooling Capacity 4.6 Kw	No.	1				
36	FCU - 28A to 28D Ceiling Cassette 4-way Cooling Capacity 5.3 Kw	No.	4				
37	FCU - 29A to 29B Ceiling Cassette 4-way Cooling Capacity 2.7 Kw	No.	2				
38	FCU - 30 Ceiling Cassette 4-way Cooling Capacity 3.4 Kw	No.	1				
39	FCU - 31 Ceiling Cassette 4-way Cooling Capacity 2.5 Kw	No.	1				
40	FCU - 32 Wall Mount Type Cooling Capacity 0.9 Kw	No.	1				
41	FCU - 33 Ceiling Cassette 4-way Cooling Capacity 2.3 Kw	No.	1				
42	FCU - 34 Wall Mount Type Cooling Capacity 1.2 Kw	No.	1				
43	FCU - 35A to 35D Ceiling Cassette 4-way Cooling Capacity 5.95 Kw	No.	4				
44	FCU - 18A,18I,18J OA Processing Duct Type Cooling Capacity 24.5 Kw	No.	3				
45	FCU - 17A to 17C Ceiling Mount Duct Type Cooling Capacity 24.3 Kw	No.	2				
46	FCU - 36A to 36D Ceiling Cassette 4-way Cooling Capacity 2.6 Kw	No.	4				
47	FCU - 18B to 18C OA Processing Duct Type Cooling Capacity 24.5 Kw	No.	2				
48	FCU - 37 Ceiling Suspended Type Cooling Capacity 5.2 Kw	No.	1				
49	FCU - 38A to 38B Ceiling Cassette 4-way Cooling Capacity 3.95 Kw	No.	2				
50	FCU - 17E,17G,17I Ceiling Mount Duct Type Cooling Capacity 22.34 Kw	No.	3				
51	FCU - 18E OA Processing Duct Type Cooling Capacity 24.5 Kw	No.	1				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
52	FCU - 19B Ceiling Mount Duct Type Cooling Capacity 22.34 Kw	No.	1				
53	FCU - 39A Wall Mount Type Cooling Capacity 1.2 Kw	No.	1				
54	FCU - 39B Wall Mount Type Cooling Capacity 1.2 Kw	No.	1				
55	FCU - 39C Wall Mount Type Cooling Capacity 1.2 Kw	No.	1				
56	FCU - 39D Wall Mount Type Cooling Capacity 1.2 Kw	No.	1				
57	FCU - 39E Wall Mount Type Cooling Capacity 1.2 Kw	No.	1				
58	FCU - 39F Wall Mount Type Cooling Capacity 1.2 Kw	No.	1				
59	FCU - 20A to 20D Ceiling Cassette 4-way Cooling Capacity 3.3 Kw	No.	4				
60	FCU - 17K,17L Ceiling Mount Duct Type Cooling Capacity 22.34 Kw	No.	2				
61	FCU - 43A to 43B Ceiling Cassette 4-way Cooling Capacity 3.65 Kw	No.	2				
62	FCU - 18G OA Processing Duct Type Cooling Capacity 24.5 Kw	No.	1				
63	FCU - 19D,19F,19H,19J Ceiling Cassette 4-way Cooling Capacity 10.8 Kw	No.	4				
64	FCU - 44 Ceiling Suspended Type Cooling Capacity 5.2 Kw	No.	1				
65	FCU - 45 Wall Mount Type Cooling Capacity 1.8 Kw	No.	1				
66	FCU - 26A to 46C Ceiling Cassette 4-way Cooling Capacity 12.2 Kw	No.	3				
67	<u>Aluminum Cladding for FCU</u> Aluminum Sheet (Ga. # 28)	m2	80				
	<u>VRF Outdoor Unit</u> Incl, Common Base,Hangers, Vibration Isolator, Supports, Inserts and Accessories.						
68	VRF - 01 to 08 Cooling Capacity 121 KW	No.	8				
69	VRF - 09 Cooling Capacity 58 KW	No.	1				
	<u>Fan Filter Unit</u> Incl, Common Base, Vibration Isolator, Hangers, Supports, Inserts and Accessories.						
70	OAF - 01 11,990 l/s x 300 Pa x 18.5 kw x 3 Ø x 230V x 60 Hz	No.	1				
71	OAF - 02 9,620 l/s x 300 Pa x 15 kw x 3 Ø x 230V x 60 Hz	No.	1				
	Refrigerant pipes, copper pipes type "L" Incl, Fittings, Hangers, Suports, Sleeves, Inserts and Accessories.						
72	6.4 mm diameter	m	181				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
73	9.5 mm diameter	m	647				
74	12.7 mm diameter	m	258				
75	15.9 mm diameter	m	389				
76	19.1 mm diameter	m	163				
77	22.2 mm diameter	m	319				
78	28.6 mm diameter	m	171				
79	34.9 mm diameter	m	62				
80	41.3 mm diameter	m	85				
81	Outdoor Multi Connection Piping Kit	set	9				
82	Refrigerant Joint Kit	No.	129				
Thermal Insulation, pre-molded rubber pipe							
83	6.4 mm diameter, t = 30mm	m	181				
84	9.5 mm diameter, t = 30mm	m	647				
85	12.7 mm diameter, t = 30mm	m	258				
86	15.9 mm diameter, t = 30 mm	m	389				
87	19.1 mm diameter, t = 30mm	m	163				
88	22.2 mm diameter, t = 30mm	m	319				
89	28.6 mm diameter, t = 30mm	m	171				
90	34.9 mm diameter, t = 30mm	m	62				
91	41.3 mm diameter, t = 30mm	m	85				
Aluminum Cladding for Pipe							
92	Aluminum Sheet (Ga. # 26)	m2	60				
Fittings and accessories							
Filter drier							
93	34,9 mm diameter	No.	1				
94	41.3 mm diameter	No.	8				
Moisture Indicator							
95	34,9 mm diameter	No.	1				
96	41.3 mm diameter	No.	8				
Duct Works							
G.I sheets							
Incl, Hangers, Supports, Sleeves, Inserts and Accessories.							
97	0.5 mm (Ga. # 26)	m ²	409				
98	0.6 mm (Ga. # 24)	m ²	325				
99	0.8 mm (Ga. # 22)	m ²	287				
100	1.0 mm (Ga. # 20)	m ²	473				
101	1.2 mm (Ga. # 18)	m ²	245				
Spiral Duct							
Incl, Fittings, Hangers, Suports ,Sleeves, Inserts and Accessories.							
102	100 mm Ø	m	31				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
103	250 mm Ø	m	37				
104	350 mm Ø	m	19				
105	400 mm Ø	m	5				
106	500 mm Ø	m	245				
107	Thermal insulation, glasswool 50 mm thick x 40 Kg/ m2 with single face foil barrier.	m ²	796				
108	<u>Aluminum Cladding for Duct</u> Aluminum Sheet (Ga. # 26)	m ²	796				
	<u>Air Grilles</u>						
	Nozzle (Neck Size)						
109	225mm Ø	No.	168				
110	350mm Ø	No.	18				
111	450mm Ø	No.	12				
	Fresh Air Grille (FA)						
112	250 x 250 mm	No.	49				
113	300 x 300 mm	No.	4				
114	350 x 350 mm	No.	1				
115	450 x 450 mm	No.	2				
	<u>Volume Damper</u>						
116	400 x 250 mm	No.	1				
117	450 x 250 mm	No.	1				
118	500 x 250 mm	No.	8				
119	900 x 500 mm	No.	1				
120	1,000 x 450 mm	No.	1				
121	2,000 x 550 mm	No.	1				
122	2,000 x 600 mm	No.	1				
	<u>Fire Damper w/ Fusible Link</u>						
123	2,000 x 550 mm	No.	1				
124	2,000 x 600 mm	No.	1				
	Elbow						
	Acoustical lining Type						
125	2000 x 600 mm	No.	1				
126	2000 x 550 mm	No.	1				
	<u>Condensate Drain Piping: PVC Pipes(VP), above Ground Incl, Fittings, Hangers, Supports, Sleeves, Inserts</u>						
127	25 mm diameter (PVC-VP)	m	303				
128	32 mm diameter (PVC-VP)	m	232				
129	40 mm diameter (PVC-VP)	m	43				
130	50 mm diameter (PVC-VP)	m	116				
131	65 mm diameter (PVC-VP)	m	23				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
132	Condensate Drain Piping; PVC Pipes(VP), under Incl, Fittings, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories. 25 mm diameter (PVC-VP)	m	54				
133	50 mm diameter (PVC-VP)	m	43				
134	65 mm diameter (PVC-VP)	m	116				
135	Condensate Drain Insulation; close cell elastomeric 25 mm diameter , t = 20mm	m	303				
136	32 mm diameter, t = 20mm	m	232				
137	40 mm diameter, t = 20mm	m	43				
138	50 mm diameter , t = 20mm	m	116				
139	65 mm diameter , t = 20mm	m	23				
140	Aluminum Cladding for Pipe Aluminum Sheet (Ga. # 26)	m ²	7				
141	Automatic Control System FFU Control System Including, Accessories & wire	set	2				
142	VRF Control system Including, ITM & Accessories	set	2				
143	BAC Net	No.	1				
144	FCU Control system Including, wiring	No.	129				
145	Wired Remote Controller	No.	50				
146	Fan Control system Including, Thermostat & wire	set	3				
	Mechanical Ventilation System						
	Equipment						
	Exhaust Fans Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.						
150	EF - 01 In-line Axial Fan 1,875 l/s x 150 Pa x 0.3 kw x 3 Øx230V x 60Hz	No.	1				
151	EF - 02 In-line Axial Fan 7,420 l/s x 170 Pa x 1.6 kw x 3 Øx230V x 60Hz	No.	1				
152	EF - 03 In-line Axial Fan 3,103 l/s x 130 Pa x 0.45 kw x 3 Øx230V x 60Hz	No.	1				
153	EF - 04 In-line Axial Fan 8,519 l/s x 150 Pa x 2.4 kw x 3 Øx230V x 60Hz	No.	1				
154	EF - 05 In-line Axial Fan 2,742 l/s x 180 Pa x 0.45 kw x 3 Øx230V x 60Hz	No.	1				
155	EF - 06 In-line Axial Fan 2,779 l/s x 180 Pa x 0.45 kw x 3 Øx230V x 60Hz	No.	1				
156	EF - 07 In-line Axial Fan 2,647 l/s x 200 Pa x 0.45 kw x 3 Øx230V x 60Hz	No.	1				
157	EF - 08 In-line Axial Fan 2,230 l/s x 160 Pa x 0.3 kw x 3 Øx230V x 60Hz	No.	1				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
158	EF - 09 In-line Axial Fan 2,660 l/s x 200 Pa x 0.45 kw x 3 Øx230V x 60Hz	No.	1				
159	EF - 10 In-line Axial Fan 2,647 l/s x 260 Pa x 0.45 kw x 3 Øx230V x 60Hz	No.	1				
160	EF - 11 In-line Axial Fan 382 l/s x 150 Pa x 0.15 kw x 3 Øx230V x 60Hz	No.	1				
161	EF - 12 In-line Axial Fan 1,079 l/s x 130 Pa x 0.15 kw x 3 Øx230V x 60Hz	No.	1				
162	EF - 13 In-line Axial Fan 103 l/s x 150 Pa x 0.15 kw x 3 Øx230V x 60Hz	No.	1				
163	EF - 14 In-line Axial Fan 112 l/s x 150 Pa x 0.15 kw x 3 Øx230V x 60Hz	No.	1				
164	EF - 15 In-line Axial Fan 360 l/s x 60 Pa x 0.045 kw x 1 Øx230V x 60Hz	No.	1				
165	EF - 16 In-line Axial Fan 1,460 l/s x 240 Pa x 0.28 kw x 3 Øx230V x 60Hz	No.	1				
	<u>Fresh Air Fan</u> Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.						
166	SF - 01 In-line Axial Fan 1,875 l/s x 150 Pa x 0.3 kw x 3 Øx230V x 60Hz	No.	1				
167	SF - 02 In-line Axial Fan 7,420 l/s x 170 Pa x 1.6 kw x 3 Øx230V x 60Hz	No.	1				
168	SF - 03 In-line Axial Fan 3,103 l/s x 130 Pa x 0.45 kw x 3 Øx230V x 60Hz	No.	1				
	<u>Duct Works</u>						
	<u>G.I sheets</u> Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories.						
169	0.5 mm (Ga. # 26)	m ²	268				
170	0.6 mm (Ga. # 24)	m ²	340				
171	0.8 mm (Ga. # 22)	m ²	17				
	<u>Spiral Duct</u> Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories.						
172	200 mm Ø	m	5				
	<u>Exhaust Air Grilles (EA)</u>						
173	250 x 250 mm	No.	17				
174	300 x 300 mm	No.	39				
175	450 x 450 mm	No.	2				
176	800 x 800 mm	No.	1				
177	850 x 850 mm	No.	4				
	<u>Supply Air Grilles (SA)</u>						
178	800 x 800 mm	No.	1				
179	850 x 850 mm	No.	2				
	<u>Volume Damper</u>						
180	150 x 150 mm	No.	2				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
181	250 x 150 mm	No.	1				
182	300 x 250 mm	No.	1				
183	400 x 250 mm	No.	1				
184	500 x 250 mm	No.	2				
185	500 x 300 mm	No.	5				
186	550 x 250 mm	No.	1				
187	550 x 300 mm	No.	2				
188	600 x 500 mm	No.	2				
189	800 x 400 mm	No.	1				
	<u>Backdraft Damper</u>						
190	150 x 150 mm	No.	2				
191	250 x 150 mm	No.	1				
192	300 x 250 mm	No.	1				
193	400 x 250 mm	No.	1				
194	500 x 250 mm	No.	1				
195	500 x 300 mm	No.	5				
196	550 x 250 mm	No.	1				
197	550 x 300 mm	No.	1				
198	600 x 500 mm	No.	1				
199	800 x 400 mm	No.	1				
	Total to Series Summary						
	Section 5300 : Fire Protection						
	<u>Piping</u>						
	Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories. B.I. Pipe Schedule 40						
1	25 mm diameter	m	1,064				
2	32 mm diameter	m	506				
3	40 mm diameter	m	392				
4	50 mm diameter	m	41				
5	65 mm diameter	m	60				
6	150 mm diameter	m	853				
	<u>Gate Valve</u>						
7	25 mm diameter	No.	6				
8	40 mm diameter	No.	6				
9	50 mm diameter	No.	5				
	<u>Gate Valve</u>						
10	150 mm diameter	No.	2				
	<u>OS & Y Valves</u>						
11	150 mm diameter	No.	2				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 5000 Series: Mechanical Works

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
12	Supervisory switch for OS & Y valves	No.	2				
13	Water flow detector switch	No.	2				
14	Sight glass; 25 mm diameter	No.	2				
15	Auxiliary drain valve; 25 mm diameter	No.	2				
16	Fire Department connection w/ cap & chain; Diameter = 65 mm (4 - Way)	No.	1				
17	Stand Pipe Fire Hose valve c/w cap and chain Diameter = 65 mm	No.	2				
18	Pressure gauge	No.	4				
19	Fire hose cabinet c/w valve, 40mm diameter x 30m fire hose w/ fog nozzle, hose rack and 4.5kg ABC type fire	No.	10				
	<u>Portable Fire Extinguisher</u>						
20	ABC Type, 4.5 kg	No.	31				
21	CO ₂ Type, 23.0 Kg	No.	3				
22	Fire extinguisher bracket	No.	31				
	<u>Sprinkler Heads</u>						
23	Pendant type	No.	539				
24	Upright type	No.	317				
	<u>Alarm Check Valve</u>						
25	Alarm check valve assembly complete with vertical closed drain trims, accessories, motor alarm gong and retard	No.	2				
	<u>Total Flooding System (FM200)</u>						
26	FM - 200 Automatic Fire Suppression System c/w FM - 200 gas cylinder, piping and detection system.	sum	1				
	Total to Series Summary						

Subcomponent-4-1: (B1)Passenger Terminal Building

Section 6000 Series: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Subcomponent-4-1: (B1) Electrical Works</p> <p style="text-align: center;">Series Summary</p> <p>Section B1-6100: Power Feeder System</p> <p>Section B1-6200: Lighting And Receptacle</p> <p>Section B1-6300: Telephone And Data System</p> <p>Section B1-6400: Cable TV System</p> <p>Section B1-6500: Public Address System</p> <p>Section B1-6600: Master Clock System</p> <p>Section B1-6700: Closed Circuit Television</p> <p>Section B1-6800: Fire Detection And Alarm</p> <p>Section B1-6900: Lightning Protection and Grounding System</p> <p style="text-align: right;">Total to Section Summary</p>						
	<u>Section B1-6100: Power Feeder System</u>						
1	30 KVA UPS, 3 Phase, 230 V	No.	1				
	<u>Panel boards</u>						
	<u>Normal Power</u>						
2	MDPL	No.	1				
3	LPN1	No.	1				
4	LPN2	No.	1				
5	LPN3	No.	1				
6	LPN4	No.	1				
7	LPN5	No.	1				
8	PN1	No.	1				
9	PN2	No.	1				
10	PNC1	No.	1				
11	PNC2	No.	1				
12	PVN	No.	1				
13	PACN	No.	1				
	<u>Normal / Emergency Power</u>						
14	LPNE1	No.	1				
15	LPNE2	No.	1				
16	PNE1	No.	1				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 6000 Series: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
17	PNE2	No.	1				
18	PACNE	No.	1				
19	PCFNE	No.	1				
	<u>UPS</u>						
20	MDUPS	No.	1				
21	UPSE1	No.	1				
22	UPSE2	No.	1				
23	Concession Panel Board	No.	14				
24	150AT, 150AF, 3P ECB	No.	8				
25	100AT, 100AF, 3P ECB	No.	5				
26	50AT, 100AF, 3P ECB	No.	10				
27	30AT, 100AF, 2P ECB	No.	20				
28	20AT, 100AF, 2P ECB	No.	30				
29	Digital Kilowatt Meter for Concession	No.	14				
	<u>Wires & Cables</u>						
30	240 mm ² XLPE	m	1,300				
31	150 mm ² XLPE	m	900				
32	120 mm ² XLPE	m	270				
33	95 mm ² XLPE	m	450				
34	70 mm ² XLPE	m	850				
35	50 mm ² XLPE	m	450				
36	35 mm ² XLPE	m	50				
37	16 mm ² XLPE	m	500				
38	10 mm ² XLPE	m	50				
39	4 mm ² XLPE	m	350				
40	Network Equipment and peripheral	m	3,500				
41	14 mm ² THHN	m	200				
42	5.5 mm ² THHN	m	4,200				
43	3.5 mm ² THHN	m	10,800				
44	14 mm ² TW	m	400				
45	8.0 mm ² TW	m	800				
46	5.5 mm ² TW	m	1,500				
	<u>Conduits/Cable Tray</u>						

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 6000 Series: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
47	IMC 100 mmØ	m	30				
48	IMC 50 mmØ	m	10				
49	IMC 40 mmØ	m	200				
50	IMC 32 mmØ	m	275				
51	IMC 25 mmØ	m	125				
52	IMC 20 mmØ	m	475				
53	IMC 15 mmØ	m	1,300				
54	Flexible IMC 20 mmØ	m	200				
55	Flexible IMC 15 mmØ	m	500				
56	500 mm (W) cable tray	m	300				
57	300 mm (W) cable tray	m	400				
58	200 mm (W) wireway	m	100				
Total to Series Summary							
<u>Section B1-6200: Lighting And Receptacle</u>							
<u>Lighting Fixtures</u>							
1	31W LED Recessed Lighting	No.	85				
2	28W LED Recessed Lighting	No.	65				
3	24W LED Recessed Lighting	No.	240				
4	8W LED Recessed Lighting	No.	9				
5	8W LED Recessed Lighting with Motion sensor	No.	151				
6	120W LED Wall mounted Lighting	No.	165				
7	50W LED Wall mounted Lighting	No.	115				
8	28W LED Ceiling Surface or Wall mounted	No.	50				
9	10W Exit Signage	No.	15				
<u>Wiring Devices & Receptacle</u>							
10	Duplex convenience outlet	No.	165				
11	Duplex convenience outlet, floor mtd. pop-out type	No.	38				
12	Single convenience outlet	No.	8				
13	Single convenience outlet (FIDS)	No.	46				
14	Special purpose outlet (Hand dryer)	No.	15				
15	Special purpose outlet (APD)	No.	4				
16	Special purpose outlet, floor mounted (Baggage X-ray, PWTM, WTMD)	No.	10				
17	Special purpose outlet (Air Curtain)	No.	8				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 6000 Series: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
18	Duplex convenience outlet, weatherproof	No.	9				
19	Duplex maintenance outlet, weatherproof	No.	4				
20	Outlet for Urinal sensor	No.	30				
21	One - gang switch	No.	20				
22	Two - gang switch	No.	35				
23	Three - gang switch	No.	5				
	<u>Wires & Cables for Light & Receptacle</u>						
24	3.5 mm ² THHN	m	55,000				
25	5.5 mm ² THHN	m	4,800				
26	3.5 mm ² Fire Rated Cable	m	3,500				
	<u>Conduit</u>						
27	20 mm Diameter IMC	m	21,000				
28	20 mm Diameter flexible metallic conduit	m	2,100				
29	Power Supply for Neon Light	Sum	1				
	Total to Series Summary						
	<u>Section B1-6300: Telephone And Data System</u>						
	<u>Telephone System</u>						
	<u>Equipment & Devices</u>						
1	Main distribution Frame (MDF)	No.	1				
2	Basic Shelf	No.	1				
3	Expansion shelf	No.	1				
4	Bus-master card of basic shelf for connecting shelf	No.	1				
5	L type PSU	No.	2				
6	16 ports analogue trunk card	No.	2				
7	8 ports Caller ID card	No.	2				
8	16 Circuit digital proprietary line card	No.	4				
9	24 ports single line card with Caller ID function	No.	6				
10	Digital Tel.6 lines LCD,24 CO, Optional USB/12CO/BT & Speaker phone	No.	60				
11	DSS Console with 60 CO Key	No.	1				
12	Voice Processing System	No.	1				
13	2 ports Hybrid Expansion Card	No.	2				
14	Mounting Kit	No.	1				
15	Installation fee extension socket for SLT	Sum	1				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 6000 Series: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
16	Installation fee extension socket for VPS	Sum	1				
17	Config Design (Telephone and VPS)	Sum	1				
18	Config Installation (Telephone)	Sum	1				
19	Config Installation (VPS)	Sum	1				
20	Telephone Terminal Cabinet	No.	1				
21	Telephone outlet w/ RJ11, wall mtd.	No.	95				
22	Telephone outlet w/ RJ11, floor mtd.	No.	6				
	<u>Wires & Cables</u>						
23	4P CAT. 5e UTP CABLE (interconnection)	m	6,100				
24	12P CAT. 5e UTP CABLE (To Other Buildings)	m	1,187				
25	24P CAT. 5e UTP CABLE (To Other Buildings)	m	1,010				
26	48P CAT. 5e UTP CABLE (To Other Buildings)	m	920				
	<u>Conduits</u>						
27	15 mm dia IMC	m	220				
28	20 mm dia IMC	m	550				
29	25 mm dia IMC	m	660				
	<u>Data System</u>						
	<u>Equipment & Devices</u>						
30	Data Terminal Cabinet	No.	1				
31	Computer outlet w/ RJ45, wall mtd.	No.	83				
	<u>Conduits</u>						
32	15 mm dia IMC	m	220				
33	20 mm dia IMC	m	550				
34	25 mm dia IMC	m	660				
	<u>Wires & Cables</u>						
35	4P CAT6 UTP CABLE (interconnection)	m	3,950				
36	12P CAT6 UTP CABLE (To Other Buildings)	m	420				
37	24P CAT6 UTP CABLE (To Other Buildings)	m	1,390				
	Total to Series Summary						
	<u>Section B1-6400: Cable TV System</u>						
	<u>Equipment / Devices</u>						
1	MCATV including amplifier, ILSE, test tuner, etc. (complete set)	No.	1				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 6000 Series: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
2	CATV Equalizers	No.	7				
3	Voltage down adapter	No.	1				
4	4 - Way splitter	No.	1				
5	Wall Outlet (For in out)	No.	6				
6	Wall Outlet (For inns)	No.	1				
7	Terminator	No.	1				
8	F type connector	No.	35				
9	14-inch Monitor	No.	1				
10	DVD Player	No.	1				
	<u>Conduit</u>						
11	20 mm diameter IMC	m	550				
	<u>Wires & Cables</u>						
12	RG6 Coaxial cable (To Other Buildings)	m	660				
13	RG6 Coaxial cable (interconnection)	m	90				
	<u>Pull Box</u>						
14	250mm(SQ) x 100mm(D) GA. 16 NEMA-1	No.	1				
15	200mm(SQ) x 100mm(D) GA. 16 NEMA-1	No.	1				
	Total to Series Summary						
	<u>Section B1-6500: Public Address System</u>						
	<u>Equipment / Devices</u>						
1	System Manager	No.	1				
2	Audio Input Unit	No.	2				
3	Stereo Select Input Module	No.	1				
4	Remote MIC Interface Module	No.	4				
5	Audio Output Unit	No.	2				
6	Remote Microphone	No.	7				
7	Stereo Select Input Module	No.	7				
7	Power Amplifier (1x120W)	No.	3				
8	Power Amplifier (1x240W)	No.	4				
9	Power Amplifier (1x420W)	No.	2				
10	Power Amplifier Input Module	No.	9				
11	Power Supply Frame	No.	1				
12	Power Supply Unit	No.	3				

Subcomponent-4-1: (B1)Passenger Terminal Building**Section 6000 Series: Electrical Works**

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
13	Emergency Power Supply Unit	No.	1				
14	Record/Playback Announcer	No.	1				
15	Memory Card	No.	1				
16	MIC/Line Input Module	No.	1				
17	Ceiling Speaker	No.	30				
18	Line Array Speaker	No.	55				
19	Line Projection Speaker	No.	20				
20	Horn Speaker	No.	4				
21	Matching Transformer	No.	51				
22	Perforated Panel	No.	5				
23	Blank Panel	No.	1				
24	CD/USB/SD/MMC Card Player with FM Radio	No.	1				
25	Cabinet Rack	No.	1				
26	Battery	No.	2				
27	TB-PA-PTB	No.	2				
	<u>Conduit</u>						
28	15 mm Diameter IMC	m	2,500				
29	20 mm Diameter IMC	m	200				
30	20 mm Diameter flexible metallic conduit	m	100				
	<u>Wires & Cables</u>						
31	1.25mm ² TF WIRE	m	7,000				
	Total to Series Summary						
	<u>Section B1-6600: Master Clock System</u>						
	<u>Equipment / Devices</u>						
1	Slave digital clock		(Included in N1-8300)				
2	Slave analog clock		(Included in N1-8300)				
3	TB-CLK-PTB	No.	1				
	<u>Conduit</u>						
4	15 mm dia IMC	m	550				
	<u>Wires & Cables</u>						
5	1.25 mm ² TF wires (To Other Buildings)	m	1,100				
6	1.25 mm ² TF wires (interconnection)	m	780				
	<u>Pull Box</u>						

Subcomponent-4-1: (B1)Passenger Terminal Building

Section 6000 Series: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
7	250mm(SQ) x 100mm(D) GA. 16 NEMA-1	No.	2				
8	100mm(SQ) x 100mm(D) GA. 16 NEMA-1	No.	1				
Total to Series Summary							
<u>Section B1-6700: Closed Circuit Television</u>							
<u>Equipment / Devices</u>							
1	TV & control desk, including cameras, controller, multiplexer, TV monitors and time lapse VCR, Computer / Station, Internet equipment & newwork switch	Sum	1				
2	PTZ DOME TYPE CAMERA (INDOOR TYPE)	No.	2				
3	PTZ CAMERA (INDOOR TYPE)	No.	7				
4	PTZ CAMERA (OUTDOOR TYPE)	No.	8				
5	TB-CCTV-PTB	No.	1				
<u>Conduit</u>							
6	20 mm Diameter IMC	m	600				
7	25 mm Diameter IMC	m	110				
8	32 mm Diameter IMC	m	130				
<u>Wires & Cables</u>							
9	1.25 mm ² TF wires (To Other Buildings)	m	920				
10	RG59 Coaxial cable (To Other Buildings)	m	460				
11	1.25 mm ² TF wires (interconnection)	m	1,400				
12	RG59 Coaxial cable (interconnection)	m	700				
<u>Pull Box</u>							
13	400mm(SQ) x 200mm(D) GA. 16 NEMA-1	No.	2				
Total to Series Summary							
<u>Section B1-6800: Fire Detection And Alarm</u>							
<u>Equipment / Devices</u>							
1	Fire Alarm Control Panel	No.	1				
2	Remote Annunciator Panel	No.	1				
3	Short Circuit Isolator	No.	16				
4	Workstation	No.	1				
5	Telephone Handset	No	3				
6	Addressable Smoke Detector	No.	175				
7	Addressable Rate of Rise Heat Detector	No.	5				
8	Addressable Fixed Type Heat Detector	No.	25				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 6000 Series: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
9	Local Combination Box	No.	24				
10	Address Module for Manual Push Station	No.	24				
11	Address Module for Fire Alarm Bell	No.	24				
12	Control Module for PABGM	No.	1				
13	Monitor Module for Fire Pump/Jockey Pump	No.	6				
14	Monitor Module for FM200	No.	2				
	<u>Conduit</u>						
15	15 mm Diameter IMC	m	3,300				
	<u>Wires & Cables</u>						
16	1.25 mm ² TF Wires (interconnection)	m	3,500				
17	Fiber optic cable (To Other Buildings)	m	5,585				
	<u>Pull Box</u>						
18	250mm(SQ) x 100mm(D) GA. 16 NEMA-1	No.	2				
19	100mm(SQ) x 100mm(D) GA. 16 NEMA-1	No.	2				
	Total to Series Summary						
	<u>Section B1-6900: Grounding System</u>						
1	Grounding System	Sum	1				
	Total to Series Summary						

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 7000 series: Special Equipment Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section 7000 series: Special Equipment Works</p> <p style="text-align: center;">Series Summary</p> <p>Section B1-7300: Baggage Handling System</p> <p>Section B1-7400: Airport Security System</p> <p>Section B1-7500: Flight Information Display</p> <p>Section B1-7600: Building Management System</p> <p>Section B1-7800: Access Control System</p> <p style="text-align: center;">Total to Subcomponent Summary</p>						
	<p>Section B1-7300: Baggage Handling System</p>						
1	<p><u>Check-in BHS</u> Check-in BHS including: C1: Weighing Conveyor ; width 785 mm x length 1.2m., 16 units C2: Dispatch Conveyor ; width 785mm x length 1.5m, 16 units C3: Collecting Conveyor ; width 1.0m x length 35m C4: Up-sloped Conveyor ; width 1.0m x length 1.5m C5: Queuing Conveyor ; width 1.0m x length 1.5m C6: Induction Conveyor ; width 1.2m x length 2.5m</p>	Sum	1				
2	<p>Weigh Scale (Pressure sensor)</p>	No.	16				
3	<p><u>In-line Screening BHS</u> In-line Screening BHS including: S1: Up-sloped Conveyor ; width 1.2m x length 2.4m S2: EDS Pre-entry Conveyor ; width 1.2m x length 3.4m S3: EDS Entry Conveyor ; width 1.0m x length 1.5m S4: EDS Exit Conveyor ; width 1.0m x length 1.5m S5: Curved Conveyor ; 90 degrees, radius 1.5m: 2 nos S6: Screening Judgment Conveyor ; width 1.0m x length 8.8m S7: Queuing Conveyor ; width 1.0m x length 1.5m S8: Bi-direction Conveyor ; width 1.0m x length 1.5m S9: EDT Holding Roller ; width 1.0m x length 1.5m S10: Cleared Baggage Conveyor ; width 1.0m x length 5.9m D1: Induction Conveyor ;width 1.0m x length 4.8m D2: Up-sloped Conveyor ; width 1.0m x length 5.7m D3: Transition Conveyor ; width 1.0m x length 1.5m D4: Curved Conveyor ; 90 degrees, radius 1.5m: 2 nos. D5: Straight Conveyor ; width 1.0m x length 7.8m D6: Down-sloped Conveyor ; width 1.0m x length 5.3m D7: Final Induction Conveyor ; width 1.0m x length 3.5m D8: Make-Up Carousel ; width 1.5m x length 51m</p>	Sum	1				
7	<p><u>Arrival BHS</u> A1: Claiming Carousel ; width 1.0m x length 61m</p>	No.	2				
9	<p><u>Ancillary Component</u> Motor Control Panel</p>	Sum	1				
10	<p>Catwalk</p>	m ²	44				
12	<p>Draught Curtain</p>	No.	7				
13	<p>Data Communication between BHS and CCO</p>	LS	1				
	Total to Series Summary						

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 7000 series: Special Equipment Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section B1-7400: Airport Security System</u>							
<u>Baggage inspection system</u>							
1	Hold - Baggage Inspection System	No.	2				
2	Hold - Baggage Inspection System (Odd sizes)	No.	1				
3	Hand - Baggage System	No.	2				
<u>Metal detection system</u>							
5	Walkthrough Metal Detector	No.	4				
<u>In-Line Screening Machine</u>							
6	Explosive Detection System (EDS)	No.	1				
7	Workstation for EDS	No.	4				
8	Electronic Trace Detector (ETD) with table	No	1				
Total to Series Summary							
<u>Section B1-7500 : Flight Information Display</u>							
1	FIDS Server with Redundant Server with 17" LCD Monitor, necessary accessories and Software	No.	1				
2	Workstation for Operation with 21.5" LCD Monitor	No.	1				
3	Workstation for Airline with 21.5" LCD Monitor	No.	6				
4	FIDS Displays - 17" LCD Monitor with controller	No.	1				
5	FIDS Displays - 21.5" LCD Monitor with controller	No.	10				
6	FIDS Displays - 40" LCD Monitor with controller	No.	29				
7	FIDS Displays - 46" LCD Monitor with controller	No.	1				
8	Installation Brackets for all FIDS Displays	Sum	1				
9	Network Equipment and peripheral	Sum	1				
10	Installation Work includes the installation of Server, LCD Monitor, Bracket and Terminal.	Sum	1				
Total to Series Summary							
<u>Section B1-7600: Building Management System</u>							
<u>Hardware</u>							
1	Management integration Server (MIS)	No.	2				
2	System Core server (SCS)	No.	2				
3	Operator workstation with PC and printer	Sum	1				

Subcomponent-4-1: (B1)Passenger Terminal Building
Section 7000 series: Special Equipment Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
4	Control panel for MIS and SCS	No.	1				
5	Remote station panel	Sum	1				
	<u>Software</u>						
6	Software	Sum	1				
	<u>PC Engineer Tool</u>						
7	PC Engineer Tool	Sum	1				
	<u>Energy Management System</u>						
8	Energy Management System	Sum	1				
	<u>DDC Controllers</u>						
9	Multipurpose Controller, I/O Module DI, DO, AI and TTD	Sum	1				
	<u>Cable</u>						
10	Fiber optical cable	m	500				
	<u>Installation Works</u>						
11	Installation Works excluding field devices	Sum	1				
	Total to Series Summary						
	<u>Section B1-7800: Access Control System</u>						
	<u>Access Control System at PTB</u>						
1	Main Control Unit comprising host computer	Sum	1				
2	Door Control Unit	Sum	1				
3	Software development	Sum	1				
4	Interface with Fire Alarm and Detection System	Sum	1				
5	Emergency Exits Control System	Sum	1				
6	Power Cables 20mm dia. IMC	m	500				
7	Signal Cables, 4P CAT5e UTP Cable	m	2,000				
8	Other signal cables	sum	1				
	Total to Series Summary						

BILL OF QUANTITIES

OF

SUBCOMPONENT-4-B3:

**Control Tower, ATC Operation &
Administration Building**

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Subcomponent-4-3: (B3) Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-3: B3 Control tower, ATC Operation and Administration Building						
	Subcomponent Summary						
	Section B3-4000 Series : Architectural Works						
	Section B3-5000 Series : Mechanical Works						
	Section B3-6000 Series : Electrical Works						
	Section B3-7000 Series : Special Equipment						
	Total to Component Summary						

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B3-4000 series : Architectural						
	Series Summary						
	Section B3-4110 : Earthwork						
	Section B3-4120 : Termite Control						
	Section B3-4220 : Concrete Works						
	Section B3-4230 : Structural Steelworks						
	Section B3-4310 : Blockworks						
	Section B3-4320 : Waterproofing						
	Section B3-4340 : Windows/Doors						
	Section B3-4350 : Metalworks						
	Section B3-4360 : Woodworks and Partitions						
	Section B3-4370 : Finishes						
	Section B3-4380 : Miscellaneous Fittings and Furnitures						
	Total to Subcomponent Summary						
	Section B3-4110 : Earthwork						
	Normal Excavation						
1	Column foundation and Pits	m ³	1,034				
2	Trenches	m ³	54				
	Excavation in Rock						
3	Column foundation and Pits	m ³	258				
4	Trenches	m ³	13				
	Filling						
5	Backfilling to foundations	m ³	541				
	Filling/Compaction						
6	Gravel bed; 100mm thick	m ²	1,290				
7	Gravel bed; 50mm thick to external sidewalk (29/MD)	m ²	549				
8	Polyethylene waterproof membrane	m ²	801				
	Total to Series Summary						
	Section B3-4120 : Termite Control						
1	Soil treatment	m ²	2,199				
	Total to Series Summary						

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section B3-4220: Concrete Works</u>							
<u>In-situ Concrete</u>							
Plain Concrete; Class B3, in :							
1	Blinding layer; 50mm thick	m ³	95				
2	Blinding layer; 50 mm thick to external sidewalk (29/MD)	m ³	5				
<u>Reinforced Concrete; Class B0 in Control Tower:</u>							
3	Beams	m ³	41				
4	Columns	m ³	4				
5	Staircase	m ³	49				
6	Walls	m ³	304				
7	Suspended slab	m ³	47				
<u>Reinforced Concrete; Class B1 in Control Tower:</u>							
8	Foundations	m ³	578				
<u>Reinforced Concrete; Class B2 in Control Tower:</u>							
9	Ground floor slab	m ³	5				
10	Base slab to external sidewalk (29/MD)	m ³	9				
<u>Reinforced Concrete; Class B1 in Operations & Administration Building:</u>							
11	Column foundations	m ³	85				
12	Ground beams	m ³	61				
13	Columns	m ³	92				
14	Beams	m ³	189				
15	Suspended slabs	m ³	179				
16	Parapet	m ³	30				
17	Staircases	m ³	23				
<u>Reinforced Concrete; Clas B2, in:</u>							
18	Ground floor slab	m ³	115				
19	Base slab to external sidewalk (29/MD)	m ³	46				
<u>Formwork</u>							

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Class F1 Formwork in: Control Tower:							
20	Column Foundations	m ²	136				
21	Beams	m ²	345				
22	Column/Encasement to column	m ²	62				
23	Wall	m ²	304				
24	Staircase	m ²	162				
25	Ground slab	m ²	3				
Class F3 Formwork in: Control Tower:							
26	Suspended slab	m ²	336				
Class F1 Formwork in Operations & Administration Building:							
27	Column Foundations	m ²	134				
28	Footing tie beams	m ²	490				
29	Columns	m ²	642				
30	Beams	m ²	1,915				
31	Staircases	m ²	225				
32	Suspended slab	m ²	1,533				
33	Walls	m ²	2,700				
Class F3 Formwork in Operations & Administration Building:							
34	Suspended slab	m ²	41				
<u>Reinforcement</u>							
<u>Control Tower:</u>							
Reinforcement bars - (grade 40 = 276 N/mm²)							
35	10 mm ~ 12mm	kg	19,278				
Reinforcement bars - (grade 60 = 415 N/mm²)							
36	16 mm ~ 25mm	kg	99,418				
<u>Operations & Administration Building:</u>							
Reinforcement bars - (grade 40 = 276 N/mm²)							
37	10 mm ~ 12mm	kg	47,506				
Reinforcement bars - (grade 60 = 415 N/mm²)							
38	16 mm ~ 25mm	kg	64,407				
Total to Series Summary							

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section B3-4230 : Structural Steelwork							
Control Tower Roof Deck							
1	Rolled H-Section	kg	5,618				
2	Angle section	kg	1,198				
3	Plate	kg	870				
4	Connection plate	kg	267				
5	Floor deck; galvanized 1.2mm thick, 51mm high	kg	1,691				
6	Fabricated square section	kg	6,732				
Total to Section Summary							
Section B3-4310: Blockwork							
Hollow Concrete Block							
1	Wall; 150mm thick in Control Tower	m ²	155				
2	Wall; 150mm thick in Operations & Administration Building:	m ²	1,833				
3	Wall; 100mm thick	m ²	9				
Reinforced Concrete Class B2 in Lintels and Stiffeners							
4	Lintel beam above opening; 150 x 200mm including formwork and reinforcement	m	7				
5	Stiffener beam; 150 x 300mm including formwork and reinforcement	m	221				
6	Stiffener column; 150 x 400mm including formwork and reinforcement	m	253				
Total to Series Summary							
Section B3-4320 : Waterproofing							
Waterproofing Membrane							
Built-up Bitumen Felt Water Proofing System; WP-1							
1	Waterproofing System with insulation applied to surface	m ²	980				
2	Waterproofing System applied to parapet wall	m ²	149				
3	50mm Thick protection concrete with 4mm diameter at 100mm welded wire mesh steel trowel finish (1/RD)	m ²	980				
4	25mm Wide contraction gap w/ sealant in protection concrete	m	382				
5	200mm Wide steel trowel finish roof ditch with metal lath (10/RD)	m	130				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Urethane Water Proofing Coating WP-3						
6	Waterproofing applied to floor (2F and 8F)	m2	80				
7	Waterproofing applied to wall;300mmhigh	m2	48				
	<u>Underground External Waterproofing Coating WP-5</u>						
8	WP for Elev. Pit to Floor	m ²	6				
9	WP for Elev. Pit wall, trench and machine foundation	m ²	46				
	Total to Series Summary						
	<u>Section B3-4340: Windows/Doors</u>						
	CURTAIN WALLING SYSTEMS; as shown on the Drawings, including steel mullions and supporting systems, steel and aluminium framing and supports, with all related fixing and support components, finishings, glass, gaskets, ironmongery, sealants						
1	6/AD 5240 x 6450(2100)	No.	1				
	WOOD DOOR SETS: flush type ; as shown on door & window schedule drawing; including all ironmongery, louvers, openings, wood frames and beads and all fixing lugs, mortar bedding/filling and sealants						
2	1/WD 700 x 2100 mm w/ louver	No.	4				
3	2/WD 900 x 2100 mm	No.	16				
4	3/WD 900 x 2100 mm w/ louver	No.	2				
5	4/WD 900 x 2100 mm w/ louver	No.	12				
6	5/WD 900 x 2100 mm w/ louver	No.	1				
7	6/WD 600 x 1800 mm	No.	7				
8	8/WD 600 x 2100 mm w/ louver	No.	2				
9	9/WD 1800 x 2100 mm	No.	1				
	STEEL DOOR SETS ; flush type as shown on door & window schedule drawing : including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling						
10	1/SD 900 x 2100 mm	No.	1				
11	2/SD 900 x 2100 mm w/ louver	No.	1				
12	3/SD 1400 x 2100 mm w/ louver	No.	1				
13	4/SD 1800 x 2100 mm	No.	2				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
14	5/SD 1800 x 2100 mm	No.	1				
15	6/SD 1800 x 2100 mm w/ louver	No.	1				
16	7/SD 600 x 2100 mm w/ louver	No.	8				
17	8/SD 800 x 2100 mm	No.	10				
18	9/SD 600 x 600 mm	No.	8				
19	12/SD 1400 x 2100 mm	No.	1				
20	13/SD 900 x 2100 mm	No.	1				
21	14/SD 900 x 2100 mm	No.	1				
22	15/SD 1400 x 2100 mm	No.	1				
	ALUMINIUM DOORS; as shown on Drawings, including glazing, beads, gaskets, ironmongery, thresholds, frame set and fixing lug, mortar bedding/filling and sealants						
23	1/AD 1800 x 2100	No	5				
24	3/AD 6980(1800) x 2100	No	1				
25	5/AD 1200(900) x 2100	No	2				
	ALUMINIUM WINDOWS WITH INSECT SCREENS; as shown on Drawings, including glazing, beads, gaskets, louvers, ironmongery, thresholds, frame set and fixing lug, mortar bedding/filling and sealants						
26	1/AW 1750 x 1200 mm w/ louver	No.	12				
27	2/AW 2640 x 1200 mm w/ louver	No.	1				
28	3/AW 4400 x 1200 mm w/ louver	No.	2				
29	4/AW 5280 x 1200 mm w/ louver	No.	7				
30	5/AW 830 x 450 mm w/ louver	No.	7				
31	6/AW 3105(1440 x 2100 mm w/ louver	No.	4				
32	7/AW 1750 x 1200 mm	No.	2				
33	8/AW 600 x 500 mm	No.	1				
	STAINLESS STEEL WINDOWS; as shown on door & window schedule drawing including sills, glass, ironmongery and sealants, sealant, sash drain and etc.						
34	1/SSW 1100 Ø w/ louver	No.	8				
35	2/SSW 3192(2810) X 2046 mm	No.	8				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	ALUMINIUM LOUVERS : fixed type ; effective rate @ 40% ; including frames, frame set and fixing lug, mortar bedding /filling and sealants and complete with insect screens and sub-frames						
36	1/AL 4400 x 500 mm	No.	8				
37	2/AL 1200 x 500 mm	No.	1				
38	3/AL 600 x 250 mm	No.	1				
39	4/AL 400 x 400 mm	No.	1				
40	5/AL 1500 x 400 mm	No.	1				
41	6/AL 750 x 450 mm	No.	1				
42	7/AL 400 x 300 mm	No.	2				
43	8/AL 350 x 300 mm	No.	6				
44	9/AL 500 x 300 mm	No.	1				
	Total to Series Summary						
	<u>Section B3-4350: Metalworks</u>						
	Expansion Joint Assemblies						
1	(4/EJD) At floor	m	8				
2	(1/EJD) At parapet	m	5				
3	(2C/EJD) At interior wall	m	30				
4	(4B/EJD) At wall/ floor	m	1				
5	(2B/EJD) At ceiling	m	8				
	Roof Drain Outlet (10/RD)						
6	100 mm Diameter (9/RD)	No.	13				
	Miscellaneous Metal Works						
7	Stainless steel nosing to stair treads (15A/MD)	m	165				
8	Aluminum cased vinyl nosing to stair treads (15B/MD)	m	16				
9	Stainless steel escape ladder 400mm wide w/ 25mm diameter. vertical member and 22mm diameter rungs at 350 o.c. fix to concrete wall w/ and including all necessary fixations. (22B/MD)	m	37				
10	Ditto (22B/MD)	m	150				
11	Raised floor system	m ²	41				
12	Window sill, 2.5mm thick x 645mm girth steel plate bent twice with and including all supporting frames and fixations to structure	m	23				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
13	Pipe enclosure, 1.5mm Thick x 880 girth x2,046 high SUS 304 stainless steel plate in hairline finish bent twice with and including all necessary supports and fixations to structure Ditto but 460mm girth x 2,046 mm high bent five times column cladding (at VFR room)	No.	8				
14	Aluminum blind box overall size 120mm wide x 100mm high fix to structure with hanger bolts (5E/MD)	m	193				
15	Aluminum wall trim at ceiling (5/MD); 20 x 15 x 10 x 20mm, double L section	m	222				
16	Aluminum Louver type A (11/RD)	m ²	73				
17	Aluminum Louver type B (34/MD)	m ²	98				
18	Trench pit cover seat (L 50 x 50 x 4 mm) w/ primer paint finish including dowel support (10mm diameter bar) w/ primer paint finish (31/MD)	m	11				
19	Trench pit cover (W< 1000 mm ; Mild steel grating)	m	11				
Stainless Steel Handrails, Guard rails and Railings							
20	Floor mounted stair & ramp handrail (11A/MD)	m	110				
21	Floor mounted guardrail (11B/MD)	m	22				
22	Wall mounted handrail (13/MD)	m	37				
23	Tower balcony guardrail	m	33				
24	Tower roof guardrail	m	27				
Access Ladders and Hatches							
25	Stainless steel fixed ladder assembly, 400mm wide, 3,800mm long	No.	1				
26	Aluminium drop-down telescopic ladder (17/MD)	No.	1				
27	600mm x 600mm floor hatch (level 9)	No.	1				
28	700mm x 700mm Roof access hatch (level 9)	No.	1				
29	1000mm x 1000mm roof access (roof tower)	No.	1				
30	Stainless Steel Maintenance Rings	No.	32				
Total to Series Summary							
Section B3-4360: Woodworks and Partitions							
Miscellaneous Wood Works							
1	Timber skirting 25 mm thick x 50 mm high (S-3)	m	457				
2	Timber infill between aluminum window and blockwall with and including aluminum channel and sealant (3B/MD)	m	14				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
3	Ditto but between aluminum window and drywall (3A/MD) Kitchen counters and cabinets as shown on the drawings : 19 mm thick MDF panel w/ high pressured laminate, including concrete slab, all necessary framing, fixing, fittings and ironmongery	m	1.2				
4	Floor mounted : 3380 x 600 x 850mm high	No.	1				
5	Wall Mounted : 3380 x 300 x 800 mm high	No.	1				
	12mm Thick Gypsum Board double layer faced partition on						
6	Partition faced one side	m ²	19				
7	Partition faced both sides	m ²	404				
	Cubicles (8/MD); including all necessary ironmongery						
8	Two unit Cubicle	No.	7				
9	Urinal partition	No.	11				
	Total to Series Summary						
	<u>Section B3-4370: Finishes</u>						
	<u>In-situ Finishes</u>						
	Internal Finishes						
1	Cement render to floor; 50mm thick, to receive damp proof paint P-6 (F8)	m ²	262				
2	Cement render to floor; 38mm thick, to receive vinyl tiles (F-6)	m ²	674				
3	Cement render to floor; 42mm thick, to receive ceramic tiles (F-4)	m ²	710				
4	Cement render to stairs; 42mm thick, to receive ceramic tiles - 300 mm wide tread (15A/MD)	m	165				
5	Cement render to stairs; 22mm thick, to receive ceramic tiles - 158.3 mm high riser (15A/MD)	m	175				
6	Cement render to stairs; 38mm thick, to receive vinyl tiles - 240 mm wide tread (15B/MD)	m	16				
7	Cement render to stairs; 38mm thick, to receive vinyl tiles - 190 mm high riser (15B/MD)	m	17				
8	Cement render to walls; 20mm thick, to receive paint (W3 & W4)	m ²	1,976				
9	Cement render to walls; 22mm thick, to receive ceramic tiles (W2)	m ²	407				
10	Cement render to wall; 25mm thick, to receive glasswool board insulation	m2	75				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
External Finishes							
11	Cement render to floors; 42mm thick, to receive ceramic tiles to floors	m ²	23				
12	Cement render to staircase landings; 50mm thick with surface	m ²	15				
13	Cement render to treads and risers; 50mm thick with surface hardener	m	106				
14	Cement render to sidewalk 30mm thick (32/MD)	m ²	565				
15	Cement render to stairs; 42mm thick, to receive ceramic tiles - 300mm wide tread (15A/MD)	m	5				
16	Cement render to stairs; 22mm thick, to receive ceramic tiles - 150mm high riser (15A/MD)	m	9				
17	Cement render to walls; 20mm thick receive paint; to Control Tower	m ²	766				
18	Cement render to walls; 20mm thick to receive paint; to Operations & Administration Building	m ²	837				
19	Cement render to concrete trellis; 20mm thick to receive paint; to Operations & Administration Building	m ²	237				
Rigid Tile/Slab/Block							
Ceramic Tile Covering							
20	Ceramic tiles to floors; 300 x 300 x 8mm thick (F4)	m ²	710				
21	Ceramic tiles to walls; 300 x 300 x 8mm thick (W2)	m ²	407				
22	Ceramic tile to stairways; 8mm thick; 275mm wide tread (15A/MD)	m	165				
23	Ceramic tile to stairways; 8mm thick; 151mm high riser (15A/MD)	m	175				
24	Ceramic tile to toilet wall coping; 300 x 200mm x 8mm thick, including cement render backing; 30mm thick (7/MD)	m	10				
Flexible Tile/Sheet							
25	Vinyl tiles to floors; 300 x 300 x 2mm thick (F-6A)	m ²	472				
26	Anti-static vinyl tiles to floors; 300 x 300 x 2mm thick (F-6B)	m ²	202				
27	Anti-static carpet tiles to floors; 500 x 500 x 7mm thick (F-9)	m ²	41				
28	Vinyl tile to stair treads; 2mm thick; 240mm	m	16				
29	Vinyl tile to stair risers; 2mm thick; 190mm	m	17				
30	Polyvinyl soft tile to skirtings; 100mm high 2mm thick (S-4)	m	460				
31	Precovered glass wool board; to walls (W-8)	m ²	75				
32	Precovered glass wool board; to ceilings (W-5)	m ²	62				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Suspended Ceilings and Bulkheads; Including Supports and Suspension System:</u>							
33	600 x 600 x 15mm Thick acoustic rockwool ceiling system (C-1)	m ²	779				
34	600 x 300 x 12mm Thick acoustic rockwool ceiling system including 9.5mm thick gypsum board (C-2)	m ²	368				
35	8mm Thick calcium silicate board (C-3)	m ²	14				
36	Suspended Double Ceiling: t=12.5 on t=9.5 Sheating gypsums (C-6)	m ²	213				
<u>Painting/Clear Finishing</u>							
Synthetic resin emulsion paint (P-1) to:							
37	Cement rendered wall (W-3); internal	m ²	933				
38	Gypsum board wall(W-7)	m ²	807				
39	Gypsum board ceiling	m ²	213				
Synthetic resin mixed paint type A (P-2) to:							
40	Wood skirting 50mm high (S-3)	m	430				
41	Wood doors	m ²	262				
Synthetic resin mixed paint type B (P-3) to:							
42	Steel doors	m ²	272				
43	Structural Steel	m ²	213				
Synthetic resin emulsion multi-layer coating (P-4) to:							
44	Cement rendered wall (W-4)	m ²	2,040				
45	Cement rendered wall (W-3); external to Control Tower	m ²	766				
46	Cement rendered wall (W-3); external to ops and admin bldg	m ²	837				
47	Cement rendered concrete trellis	m ²	237				
Epoxy resin floor paint (P-6) to:							
48	Cement rendered floors (F-8)	m ²	262				
Acrylic resin emulsion paint (P-7) to:							
49	Calcium silicate board ceiling (C-3)	m ²	14				
Total to Series Summary							
<u>Section B3-4380: Miscellaneous Fittings and Furnitures</u>							
Miscellaneous Item							

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
1	Clear mirror	m ²	11				
2	Venetian blinds	m ²	232				
3	Roll-up film screen-3,192/2,810 x 2,046mm high	No.	8				
	Lavatory Counter Top; in Granite polish finish, 20mm thick; with opening for lavatory basins including supporting frame and all necessary fixations (7/MD)						
4	2320 x 600 mm Deep	No.	5				
5	1245 x 600 mm Deep	No.	2				
	Stainless steel kitchen counter w/ double bowl sink(21/MD)						
6	3380mm x 600mm deep	No	1				
	Total to Series Summary						

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
Section B3-5000 Series: Mechanical Work Summary							
Series Summary							
Section B3-5100 : Sanitary and Plumbing							
Section B3-5200 : Ventilation and Air Condition							
Section B3-5300 : Fire Protection							
Total to Subcomponent Summary							
Section B53-5100 : Sanitary and Plumbing							
Sanitary Fixtures							
1	WC-3 Water closet (FV)	No.	16				
2	WC-4 Water closet for handicapped	No.	1				
3	Water closet handrail for handicapped	No.	1				
4	UR-3 Urinal	No.	11				
5	LAV-3 Under counter type lavatory	No.	21				
6	LAV-4 Waii Hang Lavatory	No.	1				
7	LAV-5 Lavatory for handicapped	No.	1				
8	Lavatory handrail for handicapped	No.	1				
9	SS-1 Service sink (Slop Sink)	No.	1				
10	SHW-1 Shower set	No.	7				
11	Faucet for kitchen sink	No.	2				
12	Sop Holder	No.	7				
13	PH-2 Toilet paper holder	No.	17				
14	Hose Bib	No.	2				
Kitchen Equipment							
15	SS Work Table, 1200 mm x 600 mm x 800 mm H	No.	2				
16	SS Double Sink, 1200 mm x 600 mm x 800 mm H	No.	2				
17	SS Utility Rack,4 Layers, 800 mm x 600 mm x 1800 mm H	No.	1				
18	SS Ceiling Suspended Cabinet, 1200mm x 350 mm x 600 mm H	No.	2				
19	SS Work Table, 600 mm x 600 mm x 800 mm H	No.	1				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
20	SS Work Table, 900 mm x 600 mm x 800 mm H	No.	1				
21	SS Garbage Can	No.	1				
22	SS Electric Cooking Table 2.5 Kw	No.	1				
23	Rice Cooker, 40 cups	No.	1				
24	Refrigerator, 19 cuft	No.	1				
	Water Distribution System						
	<u>Equipment</u>						
	Incl, Hangers, Vibration Isolator, Supports, Inserts and Accessories.						
25	BP - 1 Booster Pump Unit Capacity 32mm diameter x 80 l/min x 37m x 2 unit Control panel w/ noise filter double type back flow preventer, strainer and standard accessories	No.	1				
	<u>Piping Works</u>						
	Pipework, Polyvinyl chloride pipe (High Density VP)						
	Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories						
26	20 mm diameter	m	84				
27	25 mm diameter	m	46				
28	32 mm diameter	m	134				
29	40 mm diameter	m	8				
30	50 mm diameter	m	25				
31	65 mm diameter	m	40				
32	80 mm diameter	m	15				
	Gate Valve, JIS 10 Kg/cm²						
33	20 mm diameter	No.	3				
34	25 mm diameter	No.	1				
35	32 mm diameter	No.	6				
36	40 mm diameter	No.	7				
37	50 mm diameter	No.	4				
38	65 mm diameter	No.	1				
39	80 mm diameter	No.	1				
40	Water Hammer Arrester	No.	19				
	<u>Hot Water Distribution</u>						

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
	Equipment						
	Incl, Hangers, Vibration Isolator, Supports, Inserts and Accessories.						
41	EWI - 1 Electric Water Heater - Single point (Instantaneous)	No.	2				
42	Solar Water Heater Natural circulation Type, Storage Capacity 200 L Solar Panel 3.22 m2, Steel Base	No.	4				
43	Hot Water Storage Tank Storage Capacity 370 L w/ Electric Heater 5 kw, Insulation	No.	2				
44	Water Softner 40 l/min x 300 w x 30 x 230v x 60Hz	No.	2				
45	Booster Pump Unit 40 l/min x 10m TDH x 0.4Kw x 30 x 230v x 60Hz	No.	1				
46	Hot Water Circulation Pump 5 l/min x 3m TDH x 0.1Kw x 10 x 230v x 60Hz	No.	1				
	Hot Water Piping Works						
	Cooper Pipe, Type L						
	Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories						
47	15mm	m	100				
48	20mm	m	17				
49	25mm	m	22				
50	32mm	m	47				
	Thermal insulation						
	Closed cell elastomeric thermal insulation						
51	15mm x 20mm	m	100				
52	20mm x 20mm	m	17				
53	25mm x 20mm	m	22				
54	32mm x 20mm	m	47				
	Gate Valve, JIS 10 Kg/cm2						
55	15mm	No.	17				
56	20mm	No.	3				
57	25mm	No.	2				
58	32mm	No.	12				
	Check Valve, JIS 10 Kg/cm2						
59	15mm	No.	1				
60	32mm	No.	1				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
61	Y-Strainer, JIS 10 Kg/cm2 15mm	No.	1				
62	32mm	No.	1				
63	Flexible Joint, JIS 10 Kg/cm2 15mm	No.	2				
64	25mm	No.	2				
65	32mm	No.	2				
66	Air Vent, JIS 10 Kg/cm2 15mm	No.	2				
67	Constant Flow Valve, JIS 10 Kg/cm2 15mm	No.	1				
68	Wax Type 3-Way Valve, JIS 10 Kg/cm2 32mm	No.	1				
	<u>Sewer Piping System</u>						
	<u>Pipework/Accessories</u>						
	Pipework, Polyvinyl chloride pipe (High Density VP) Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand bedding and Accessories						
69	100 mm diameter	m	246				
70	75 mm diameter	m	5				
71	50 mm diameter	m	102				
	Fittings						
	Wye & 1/8 bend combination						
72	100 mm diameter	No.	8				
73	100 x 75 mm diameter	No.	1				
74	100 x 50 mm diameter	No.	32				
75	50 x 50 mm diameter	No.	2				
	Wye						
76	100 mm diameter	No.	20				
	100 x 50 mm diameter	No.	32				
	1/8 Bend						
77	100 mm diameter	No.	16				
78	50 mm diameter	No.	56				
	1/4 Bend						
79	100 mm diameter	No.	21				
80	50 mm diameter	No.	38				
	Floor / Ground Clean Out						
81	100 mm diameter	No.	38				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
82	P - Trap 50 mm diameter	No.	28				
83	Floor Drains 50 mm diameter	No.	26				
84	Shower Drains Grease trap @ kitchen	No.	1				
85	Oil Interceptor (for mechanical room)	No.	1				
	<u>Vent Pipes</u>						
	Pipework, PVC (VU) Incl, Hangers, Supports, Sleeves, Inserts and Accessories						
86	100 mm diameter	m	576.00				
87	75 mm diameter	m	130.00				
88	50 mm diameter	m	478.00				
	Fittings						
	90° Bend						
89	100 mm diameter	No.	18				
90	75 mm diameter	No.	1				
91	50 mm diameter	No.	55				
	90° TEE						
92	100 mm diameter	No.	8				
93	75 mm diameter	No.	1				
94	50 mm diameter	No.	45				
	Reducer						
95	75 x 50 mm diameter	No.	1				
	<u>Storm Drain</u>						
	Pipework						
	Above Ground						
	Galvanized carbon steel pipe ASTM Sch-40 Incl, Hangers, Supports, Sleeves, Inserts and Accessories						
96	100 mm diameter	m	173.00				
97	75 mm diameter	m	18.00				
	Under Ground						
	Pipework, Polyvinyl chloride pipe (VP) Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand bedding and Accessories						
98	150 mm diameter	m	98.00				
99	100 mm diameter	m	41.00				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
	Fittings (GI)						
	90° Bend						
100	100 mm diameter	No.	11				
101	75 mm diameter	No.	11				
	45° Bend						
102	100 mm diameter	No.	29				
103	75 mm diameter	No.	9				
	Wye						
104	100 mm diameter	No.	2				
105	75 mm diameter	No.	5				
	Roof Drains						
106	100 mm diameter	No.	11				
107	75 mm diameter	No.	8				
108	Catch Basin	No.	13				
109	Catch Basin Cover	No.	13				
	Total to Section Summary						
Section B53-5200 : Ventilation and Air Conditioning							
<u>Air Conditioning System</u>							
<u>Operation and Administration Building</u>							
<u>Equipment</u>							
<u>Fan Coil Unit (VRF Indoor Unit)</u>							
Incl, Hangers, Suppoets, Sleeves, Inserts, Vibration Isolators and Accessories.							
1	FCU-01A to 01D Ceiling casset 4-Way Cooling Capacity 2.8 Kw	No.	4				
2	FCU-02 Ceiling casset 4-Way Cooling Capacity 2.3 Kw	No.	1				
3	FCU-03 Ceiling casset 4-Way Cooling Capacity 1.5 Kw	No.	1				
4	FCU-04A to 04B Ceiling casset 4-Way Cooling Capacity 6.2 Kw	No.	2				
5	FCU-05 Ceiling Suspended Cooling Capacity 3.0 Kw	No.	1				
6	FCU-06 Ceiling casset 4-Way Cooling Capacity 1.5 Kw	No.	1				
7	FCU-07 Ceiling casset 4-Way Cooling Capacity 1.7 Kw	No.	1				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
8	FCU-08 Ceiling casset 4-Way Cooling Capacity 0.8 Kw	No.	1				
9	FCU-09 Ceiling Mount Duct Type Cooling Capacity 24.5 Kw	No.	1				
10	FCU-10A to 10B Ceiling casset 4-Way Cooling Capacity 1.9 Kw	No.	2				
11	FCU-11A to 11B Ceiling casset 4-Way Cooling Capacity 1.55 Kw	No.	2				
12	FCU-12 Wall Mounted Cooling Capacity 1.0 Kw	No.	1				
13	FCU-13A to 13B Ceiling casset 4-Way Cooling Capacity 3.95 Kw	No.	2				
14	FCU-14A to 14C Ceiling casset 4-Way Cooling Capacity 4.07 Kw	No.	3				
15	FCU-15A to 15B Ceiling casset 4-Way Cooling Capacity 1.8 Kw	No.	2				
16	FCU-16A to 16B Ceiling casset 4-Way Cooling Capacity 2.8 Kw	No.	2				
17	FCU-17 Ceiling casset 4-Way Cooling Capacity 0.1 Kw	No.	1				
18	FCU-18 Ceiling Mounted Duct Type Cooling Capacity 19.5 Kw	No.	1				
19	FCU-19A to 19C Ceiling Suspended Cooling Capacity 6.83 Kw	No.	3				
20	FCU-20A to 20C Ceiling casset 4-Way Cooling Capacity 3.0 Kw	No.	3				
21	FCU-21A to 21B Ceiling casset 4-Way Cooling Capacity 3.2 Kw	No.	2				
22	FCU-22A to 22B Ceiling casset 4-Way Cooling Capacity 2.7 Kw	No.	2				
23	FCU-23A to 23B Ceiling casset 4-Way Cooling Capacity 2.9 Kw	No.	2				
24	FCU-24 Ceiling casset 4-Way Cooling Capacity 2.9 Kw	No.	1				
25	FCU-25 Ceiling Mounted Duct Type Cooling Capacity 19.5 Kw	No.	1				
26	FCU-26A to 26B Ceiling casset 4-Way Cooling Capacity 2.6 Kw	No.	2				
27	FCU-27A to 27B Ceiling casset 4-Way Cooling Capacity 2.7 Kw	No.	2				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
28	FCU-28A to 28B Ceiling casset 4-Way Cooling Capacity 2.35 Kw	No.	2				
29	FCU-29A to 29B Ceiling casset 4-Way Cooling Capacity 6.15 Kw	No.	2				
30	FCU-30A to 30B Ceiling casset 4-Way Cooling Capacity 4.4 Kw	No.	2				
31	FCU-31A to 31B Ceiling casset 4-Way Cooling Capacity 5.1 Kw	No.	2				
32	FCU-32A to 32B Ceiling casset 4-Way Cooling Capacity 3.1 Kw	No.	2				
33	FCU-33 Ceiling casset 4-Way Cooling Capacity 2.1 Kw	No.	1				
34	FCU-34 Ceiling Mounted Duct Type Cooling Capacity 24.5 Kw	No.	1				
35	FCU-35A to 35B Ceiling casset 4-Way Cooling Capacity 8.4 Kw	No.	2				
36	FCU-36A to 36B Ceiling casset 4-Way Cooling Capacity 1.6 Kw	No.	2				
37	FCU-37A to 37B Ceiling casset 4-Way Cooling Capacity 5.9 Kw	No.	2				
38	FCU-38 Ceiling casset 4-Way Cooling Capacity 5.0 Kw	No.	1				
39	FCU-39A to 39B Ceiling casset 4-Way Cooling Capacity 9.0 Kw	No.	2				
40	FCU-40 Ceiling casset 4-Way Cooling Capacity 5.3 Kw	No.	1				
41	FCU-41 Ceiling casset 4-Way Cooling Capacity 8.0 Kw	No.	1				
42	FCU-42A to 42C Ceiling Suspended Cooling Capacity 8.4 Kw	No.	3				
43	FCU-43A to 43B Ceiling casset 4-Way Cooling Capacity 6.2 Kw	No.	2				
44	FCU-44 Ceiling casset 4-Way Cooling Capacity 8.9 Kw	No.	1				
45	FCU-45 Ceiling casset 4-Way Cooling Capacity 7.8 Kw	No.	1				
46	FCU-46A to 465B Ceiling casset 4-Way Cooling Capacity 5.7 Kw	No.	2				
47	FCU-47A to 47B Ceiling casset 4-Way Cooling Capacity 6.3 Kw	No.	2				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
48	FCU-48A to 48B Ceiling casset 4-Way Cooling Capacity 7.5 Kw	No.	2				
49	FCU-49 Ceiling casset 4-Way Cooling Capacity 8.6 Kw	No.	1				
	VRF Outdoor Unit Incl, Common Base, Hangers, Suppoets, Sleeves, Inserts, Vibration Isolators and Accessories.						
50	VRF - 01 Cooling capacity 68.1 Kw	No.	1				
51	VRF - 02 Cooling capacity 68.1 Kw	No.	1				
52	VRF - 03 Cooling capacity 82.6 Kw	No.	1				
53	VRF - 04 Cooling capacity 77.8 Kw	No.	1				
54	VRF - 05 Cooling capacity 77.8 Kw	No.	1				
55	VRF - 06 Cooling capacity 63.3 Kw	No.	1				
56	VRF - 07 Cooling capacity 58.45 Kw	No.	1				
	Fan Filter Unit Incl, Hangers, Suppoets, Sleeves, Inserts, Vibration Isolators and Accessories.						
57	OAF - 1 1910 l/s x 200 Pa x 2.2 Kw x 3 Ø x 230V x 60Hz	No.	1				
	Refrigerant pipes, copper pipes type "L" (Incl, Fittings, Hangers, Suppoets, Sleeves, Inserts, and Accessories)						
58	6.4 mm diameter	m	152.0				
59	9.5 mm diameter	m	366.0				
60	12.9 mm diameter	m	212.0				
61	15.9 mm diameter	m	249.0				
62	19.1 mm diameter	m	124.0				
63	22.2 mm diameter	m	95.0				
64	28.6 mm diameter	m	72.0				
65	34.9 mm diameter	m	69.0				
66	Outdoor Multi Conection Piping Kit Kit	set	7				
67	Refrigerant Joint Kit	No.	84				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
Thermal insulation							
Closed cell elastomeric thermal insulation							
68	6.4 mm diameter, t = 30mm	m	152.0				
69	9.5 mm diameter, t = 30mm	m	366.0				
70	12.9 mm diameter, t = 30mm	m	212.0				
71	15.9 mm diameter, t = 30mm	m	249.0				
72	19.1 mm diameter, t = 30mm	m	124.0				
73	22.2 mm diameter, t = 30mm	m	95.0				
74	28.6 mm diameter, t = 30mm	m	72.0				
75	34.9 mm diameter, t = 30mm	m	69.0				
Pipe Fittings							
76	Filter Drier, 34.9 diameter	No.	6				
77	Filter Drier, 28.6 diameter	No.	1				
78	Moisture Indicator, 34.9 diameter	No.	6				
79	Moisture Indicator, 28.6 diameter	No.	1				
Aluminum Cladding for Pipe							
80	Aluminum Sheet (Ga. # 26)	m ²	38				
Duct Works							
G.I sheets (Incl, Hangers, Supports, Sleeves, Inserts, and Accessories)							
81	0.5 mm (Ga. # 26)	m ²	295				
82	0.6 mm (Ga. # 24)	m ²	89				
83	Thermal insulation, glasswool 50 mm thick x 40 Kg/ m2 with single face foil barrier.	m ²	221				
Air Grilles							
Supply Air register (SA)							
84	150 x 150 mm	No.	15				
85	200 x 200 mm	No.	17				
Volume Damper							
86	400 x 200 mm	No.	1				
87	400 x 250 mm	No.	1				
88	400 x 300 mm	No.	1				
89	450 x 250 mm	No.	1				
90	700 x 400 mm	No.	1				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
	<u>Fire Damper w/ Fusible Link</u>						
91	150 x 150 mm	No.	1				
92	200 x 150 mm	No.	1				
93	700 x 400 mm	No.	1				
	<u>Acoustical lining Elbow</u>						
94	700 x 400 mm	No.	1				
	<u>Condensate Drain Piping; PVC Pipes(VP) Above Ground</u>						
	Incl, Fittings, Hangers, Supports, Sleeves, Inserts, and Accessories						
95	25 mm diameter	m	191				
96	32 mm diameter	m	121				
97	40 mm diameter	m	40				
98	65 mm diameter	m	29				
	<u>Condensate Drain Piping; PVC Pipes(VP) Under Ground</u>						
	Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand bedding and Accessories						
99	25 mm diameter	m	30				
100	65 mm diameter	m	33				
	<u>Condensate Drain Insulation;</u>						
	<u>Closed cell elastomeric thermal insulation</u>						
101	25 mm diameter t = 20mm	m	191				
102	32 mm diameter t = 20mm	m	121				
103	40 mm diameter t = 20mm	m	40				
104	65 mm diameter t = 20mm	m	29				
	<u>Automatic Control System</u>						
105	FFU Control System Including, Accessories & wire	set	1				
106	VRF Control system Including, ITM & Accessories	set	1				
107	BAC Net	No.	1				
108	FCU Control system including wiring	No.	84				
109	Wired Remote Controller	No.	30				
110	Fan Control system Including, Thermostat & wire	set	2				
	<u>Mechanical Ventilation System</u>						
	Equipment						

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
	Exhaust Fans (Incl, Hangers, Supports, Sleeves, Inserts, Vibration Isolators and Accessories)						
111	EF - 1 - GF In-line Axial Fan 624 l/s x 150Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				
112	EF - 2 - GF In-line Axial Fan 3,871 l/s x 150Pa x 0.7Kw x 3 Ø x 230V x 60Hz	No.	1				
113	EF - 3 - GF Ceiling casset Fan 201 l/s x 100Pa x 0.045Kw x 1 Ø x 230V x 60Hz	No.	1				
114	EF - 4 - GF In-line Axial Fan 718 l/s x 200Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				
115	EF - 5 - GF In-line Axial Fan 408 l/s x 130Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				
116	EF - 6 - GF In-line Axial Fan 447 l/s x 130Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				
117	EF - 7 - GF In-line Axial Fan 393 l/s x 130Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				
118	EF - 8 - GF In-line Axial Fan 393 l/s x 130Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				
119	EF - 9 - GF In-line Axial Fan 374 l/s x 130Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				
120	EF - 10 - GF In-line Axial Fan 133 l/s x 80Pa x 0.045Kw x 1 Ø x 230V x 60Hz	No.	1				
121	EF - 11 - 2F Ceiling casset Fan 407 l/s x 130Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				
122	EF - 12 - 2F In-line Axial Fan 318 l/s x 130Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				
123	EF - 13 - 2F In-line Axial Fan 452 l/s x 130Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				
124	EF - 14 - 2F In-line Axial Fan 380 l/s x 130Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				
125	EF - 15 - 2F In-line Axial Fan 380 l/s x 130Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				
126	EF - 16 - 2F Ceiling casset Fan 288 l/s x 80Pa x 0.045Kw x 1 Ø x 230V x 60Hz	No.	1				
127	EF - 17 - 2F Ceiling casset Fan 267 l/s x 80Pa x 0.045Kw x 1 Ø x 230V x 60Hz	No.	1				
128	EF - 18 - 2F Ceiling casset Fan 133 l/s x 80Pa x 0.045Kw x 1 Ø x 230V x 60Hz	No.	1				
129	SF- 1- GF In-line Axial Fan 624 l/s x 150Pa x 0.15Kw x 3 Ø x 230V x 60Hz	No.	1				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
130	SF- 2- GF In-line Axial Fan 3,871 l/s x 150Pa x 0.7Kw x 3 Ø x 230V x 60Hz	No.	1				
	<u>Duct Works</u>						
	<u>G.I sheets</u> (Incl, Hangers, Suppoets, Sleeves, Inserts, and Accessories)						
131	0.5 mm (Ga. # 26)	m ²	69				
132	0.6 mm (Ga. # 24)	m ²	33				
133	0.8 mm (Ga. # 22)	m ²	6				
134	1.2 mm (Ga. # 18)	m ²	7				
	<u>Exhaust Air Grilles (EA)</u>						
135	150 x 150 mm	No.	15				
136	200 x 200 mm	No.	17				
	<u>Volume Damper</u>						
137	250 x 200 mm	No.	2				
138	300 x 200 mm	No.	7				
139	350 x 200 mm	No.	3				
140	750 x 350 mm	No.	2				
	<u>Back Draft Damper</u>						
141	250 x 200 mm	No.	1				
142	300 x 200 mm	No.	7				
143	350 x 200 mm	No.	3				
144	750 x 350 mm	No.	1				
	<u>Control Tower</u>						
	<u>Equipment</u>						
	<u>Air Cooled Packaged Air Conditioner</u> (Incl, Hangers, Suppoets, Sleeves, Inserts, Vibration Isolators and Accessories)						
145	Ceiling cassette split type AC unit Cooling Capacity 10.25 KW	No.	4				
146	Wall mounted split type AC unit Cooling Capacity 5.3 KW	No.	2				
	<u>Refrigerant pipes, copper pipes type "L"</u> (Incl, Fittings, Hangers, Suppoets, Sleeves, Inserts, and Accessories)						
147	6.35 mm diameter	m	15.00				
148	9.53 mm diameter	m	55.00				
149	15.88 mm diameter	m	40.00				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
150	Closed cell elastomeric thermal insulation 6.35 mm diameter (30 mm thick)	m	15.00				
151	9.53 mm diameter (30 mm thick)	m	55.00				
152	15.88 mm diameter (30 mm thick)	m	40.00				
	<u>Condensate Drain Piping; PVC Pipes(VP)</u> (Incl, Fittings, Hangers, Suppoets, Sleeves, Inserts, and Accessories)						
153	25 mm diameter	m	24.00				
154	50 mm diameter	m	10.00				
	<u>Condensate Drain Insulation;</u> Closed cell elastomeric thermal insulation						
155	50 mm diameter, t = 20mm	m	10.00				
156	25 mm diameter, t = 20mm	m	24.00				
	<u>Aluminum Cladding</u>						
157	Aluminum Sheet (Ga. # 26)	m ²	24.00				
	<u>Mechanical Ventilation System</u>						
	Equipment						
	<u>Exhaust Fans</u> (Incl, Hangers, Suppoets, Sleeves, Inserts, Vibration Isolators and Accessories)						
158	EF - 1- 7F In-line Axial Fan 519 l/s x 175Pa x 0.37Kw x 1 Ø x 230V x 60Hz	No.	1				
159	EF - 2 - 7F In-line Axial Fan 356 l/s x 0.047Kw x 1 Ø x 230V x 60Hz	No.	1				
160	EF - 3- 8F In-line Axial Fan 728 l/s x 170Pa x 0.37Kw x 1 Ø x 230V x 60Hz	No.	1				
161	EF -4A- 8F Ceiling Casset Fan 15 l/s x 48Pa x 0.03Kw x 1 Ø x 230V x 60Hz	No.	1				
162	EF -4B- 8F Ceiling Casset Fan 15 l/s x 48Pa x 0.03Kw x 1 Ø x 230V x 60Hz	No.	1				
	<u>Fresh Air Fans</u> (Incl, Hangers, Suppoets, Sleeves, Inserts, Vibration Isolators and Accessories)						
163	SPF - 1 - 7F In-line Axial Fan 1056 l/s x 200Pa x 0.75Kw x 3 Ø x 230V x 60Hz	No.	1				
164	FAF - 1-7F In-line Axial Fan 1364 l/s x 105Pa x 0.55Kw x 3 Ø x 230V x 60Hz	No.	1				
	<u>Duct Works</u>						
	<u>G.I sheets</u> (Incl, Hangers, Suppoets, Sleeves, Inserts, and Accessories)						

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
165	0.6 mm (Ga. # 24)	m ²	200.00				
166	0.8 mm (Ga. # 22)	m ²	300.00				
	<u>Exhaust Air Grilles (EA)</u>						
167	250 x 250 mm	No.	7				
168	350 x 350 mm	No.	4				
	<u>Fresh and Pressurization Air Grilles (FA)</u>						
169	250 x 250 mm	No.	7				
170	300 x 300 mm	No.	1				
171	500 x 400 mm	No.	4				
172	900 x 850 mm	No.	1				
	<u>Volume Damper</u>						
173	400 x 300 mm	No.	16				
174	300 x 300 mm	No.	7				
	<u>Backdraft Damper</u>						
175	800 x 500 mm	No.	1				
176	700 x 400 mm	No.	1				
177	500 x 300 mm	No.	1				
	Total to Section Summary						
	Section B53-5300 : Fire Protection						
	<u>Operation and Administration Building</u>						
1	Fire hose cabinet c/w valve, 40mm diameter x 30m fire hose w/ fog nozzle, hose rack and 4.5kg ABC type fire extinguisher	No.	2				
	<u>Portable Fire Extinguisher</u>						
2	ABC Type, 4.5 kg	No.	4				
3	CO ₂ Type, 4.5 Kg	No.	2				
4	CO ₂ Type, 23.0 Kg	No.	1				
5	Fire extinguisher bracket W/housing	No.	6				
	<u>Control Tower</u>						
6	Fire hose cabinet c/w valve, 40mm diameter x 30m fire hose w/ fog nozzle, hose rack and 4.5kg ABC type fire extinguisher	No.	4				
	<u>Portable Fire Extinguisher</u>						
7	ABC Type, 4.5 kg	No.	9				
8	CO ₂ Type, 9.0 Kg	No.	8				

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local	Foreign	Local	Foreign
				Peso	Yen	Peso	Yen
9	Fire extinguisher bracket W/ housing	No.	17				
	Total to Section Summary						

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-6000 Series: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section B3-6700: Closed Circuit Television							
Equipment / Devices							
1	19 inch Monitor, Power Supply Unit & Control desk (VFR)	Sum	1				
2	Camera with motorized zoom lens (indoor type)	No.	5				
3	Terminal Board (TB-CCTV-CTO)	No.	1				
Wires & Cables							
4	RG59 Coaxial cable (interconnection)	m	130				
Conduits							
5	IMC 20 mm dia	m	50				
6	IMC 25 mm dia	m	45				
7	IMC 32 mm dia	m	30				
Total to Series Summary							
Section B3-6800: Fire Detection And Alarm							
Equipment / Devices							
1	Fire Alarm Control Panel (FACP-2)	No.	1				
2	Smoke detector (addressable)	No.	81				
3	Heat Detector (addressable)	No.	7				
4	Fire alarm bell	No.	11				
5	Manual Fire Alarm Station	No.	11				
6	Fire Zone Locator	No.	9				
7	Fireman's Telephone Jack	No.	10				
Wires & Cables							
8	1.25 mm ² TF Wires (interconnection)	m	1,100				
Conduits							
9	IEC 15 mm dia	m	1,100				
10	IEC 20 mm dia	m	50				
11	IEC 25 mm dia	m	160				
Total to Series Summary							

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-6000 Series: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section B3-6900 Lightning Protection and Grounding System							
<u>Lightning Protection</u>							
1	Early Emission Type Air Terminal (Coverage 120m)	No.	3				
2	Earthing Grounding for Early Emission, Air Terminal (complete)	No.	3				
3	Counter Meter	No.	3				
4	Down Conductor (complete) , 263 KV withstand Voltage	m	110				
5	Conventional Type Air Terminal (complete)	No.	4				
6	3000mm x 20mmΦ Copper Clad Ground Rod	No.	4				
7	Cadweld/ Bolted Ground Connector	No.	4				
8	100 mm ² BCW (For Conventional Type)	m	80				
<u>Grounding System</u>							
9	Grounding System	Sum	1				
Total to Series Summary							

Subcomponent-4-3: (B3) Control tower, ATC Operation and Administration Building

Section B3-7000 Series: Special Equipment Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section B3-7000 series: Special Equipment Works</p> <p>Series Summary</p> <p>Section B3-7200: Elevator</p> <p>Section B3-7800: Access Control System (ACS)</p> <p>Total to Subcomponent Summary</p>						
1	<p>Section B3-7200: Elevator</p> <p>CEV-1 Elevator (3Stop / 8Floor)</p> <p>Total to Series Summary</p>	No.	1				
1	<p>Section B3-7800: Access Control System (ACS)</p> <p>Access Control Key Pad including Finger reader, LCD Display, Finger Reader, UPS, cabling of signal and power supply</p> <p>Total to Series Summary</p>	sum	1				

BILL OF QUANTITIES

OF

SUBCOMPONENT-4-B4:

Fire Station & Airport Maintenance
Building (FSM)

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building

Subcomponent-4-B4 Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building						
	Subcomponent Summary						
	Section B4-4000 Series: Architectural Works						
	Section B4-5000 Series: Mechanical Works						
	Section B4-6000 Series: Electrical Works						
	Total to Component Summary						

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
 Section B4-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B4-4000 Series: Architectural Work						
	Series Summary						
	Section B4-4110 : Earthwork						
	Section B4-4120 : Termite Control						
	Section B4-4220 : Concrete Works						
	Section B4-4310 : Blockworks						
	Section B4-4320 : Waterproofing						
	Section B4-4340 : Windows/Doors						
	Section B4-4350 : Metalworks						
	Section B4-4360 : Woodwork and Partitions						
	Section B4-4370 : Finishes						
	Section B4-4380 : Miscellaneous Fittings and Furniture						
	Total to Subcomponent Summary						
	Section B4-4110 : Earthwork						
	Normal Excavation						
1	Column foundation and Pits	m ³	172				
2	Ground beams	m ³	74				
	Excavation in Rock						
3	Column foundation and Pits	m ³	43				
4	Ground beams	m ³	18				
	Filling						
5	Backfilling to foundations	m ³	173				
	Filling/Compaction						
6	Gravel bed; 50mm thick	m ²	92				
7	Gravel bed; 100mm thick	m ²	977				
8	Gravel bed; 50mm thick to external sidewalk (29/MD)	m ²	456				
9	Polyethylene waterproof membrane	m ²	864				
	Total to Series Summary						
	Section B4-4120 : Termite Control						
1	Soil treatment	m ²	1,966				
	Total to Series Summary						
	Section B4-4220: Concrete Works						
	In-situ Concrete						
	Plain Concrete Class B3 in:						

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
Section B4-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
1	Blinding layer; 50mm thick	m ³	54				
2	Blinding layer; 50 mm thick to external sidewalk (29/MD)	m ³	23				
<u>Reinforced Concrete; Class B1 in:</u>							
3	Column foundations	m ³	60				
4	Ground beams	m ³	55				
5	Columns	m ³	59				
6	Beams	m ³	106				
7	Suspended slabs	m ³	86				
8	Parapet	m ³	30				
<u>Reinforced Concrete; Class B2 in:</u>							
9	Ground floor slab	m ³	130				
10	Base slab to external sidewalk (29/MD)	m ³	46				
<u>Formwork</u>							
<u>Class F1 Formwork in:</u>							
11	Column foundations	m ²	115				
12	Ground beams	m ²	459				
13	Columns	m ²	370				
14	Beams	m ²	950				
15	Ground slabs	m ²	21				
16	Suspended slabs	m ²	443				
17	Parapet	m ²	345				
<u>Class F3 Formwork in:</u>							
18	Suspended slabs	m ²	421				
<u>Reinforcement</u>							
<u>Reinforcement bars - (grade 40 = 276 N/mm²)</u>							
19	10 mm ~ 12mm	kg	21,877				
<u>Reinforcement bars - (grade 60 = 415 N/mm²)</u>							
20	16 mm ~ 25mm	kg	28,304				
Total to Series Summary							
<u>Section B4-4310: Blockwork</u>							
<u>Hollow Concrete Block</u>							
1	Wall; 150mm thick	m ²	584				
<u>Reinforced Concrete Class B2 in Lintels and Stiffeners</u>							
2	Lintel beam above opening; 150 x 200mm including formwork and reinforcement	m	31				

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
Section B4-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
3	Stiffener beam; 150 x 300mm including formwork and reinforcement	m	245				
4	Stiffener column; 150 x 300mm including formwork and reinforcement	m	121				
Total to Series Summary							
Section B4-4320: Waterproofing							
Waterproofing Membrane							
<u>Built-up Bitumen Felt Water Proofing System; WP-1</u>							
1	Waterproofing System with insulation applied to surface (1/RD)	m ²	864				
2	Waterproofing System applied to parapet wall (1/RD)	m ²	158				
3	50mm Thick protection concrete with 4mm diameter at 100mm welded wire mesh steel trowel finish, (1/RD)	m ²	837				
4	25mm Wide contraction gap w/ sealant in protection concrete (3/RD)	m	800				
5	350mm Wide steel trowel finish roof ditch with metal lath	m	104				
<u>Urethane Waterproofing Coating WP-3</u>							
6	Waterproofing applied to toilet & kitchen floor (F4)	m ²	32				
7	Waterproofing applied to wall at 300mm high(W4)	m ²	21				
Total to Section Summary							
Section B4-4340: Windows/Doors							
<u>WOOD DOOR SETS: flush type ; as shown on door & window schedule drawing; including all ironmongery, louvers, openings, wood frames and beads and all fixing lugs, mortar bedding/filling and sealants</u>							
1	1/WD 600 x 2100 mm w/ louver	No.	2				
2	2/WD 900 x 2100 mm	No.	4				
3	3/WD 900 x 2100 mm w/ louver	No.	5				
4	4/WD 900 x 2100 mm w/ louver	No.	2				
5	5/WD 900 x 2100 mm w/ louver	No.	1				
6	6/WD 1800 x 2100 mm	No.	1				
7	7/WD 900 x 2100 mm w/ louver	No.	1				
8	8/WD 600 x 1800 mm	No.	3				
<u>STEEL DOOR SETS ; flush type as shown on door & window schedule drawing : including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling</u>							
9	2/SD 900 x 2100 mm w/ louver	No.	1				

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
Section B4-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
10	3/SD 900 x 2100 mm w/ louver	No.	1				
11	4/SD 1400 x 2100 mm w/ louver	No.	2				
12	5/SD 1800 x 2100 mm w/ louver	No.	1				
	<u>ALUMINIUM WINDOWS WITH INSECT SCREENS; as shown on Drawings, including glazing, beads, gaskets, ironmongery, thresholds, frame set and fixing lug, mortar bedding/filling and sealants</u>						
13	1/AW 2580(900) x 2635 mm w/ louver	No.	1				
14	2/AW 1900 x 1735 (1175) mm w/ louver	No.	20				
15	3/AW 2900 x 1735 (1175) mm w/ louver	No.	1				
16	4/AW 4900 x 1735 (1175) mm w/ louver	No.	1				
17	5/AW 1900 x 535 mm	No.	4				
18	6/AW 950 x 535 mm	No.	1				
19	7/AW 1900 x 535 mm w/ louver	No.	4				
	<u>ALUMINIUM LOUVERS : fixed type : effective rate @ 40%; including frames, frame set and fixing lug, mortar bedding/filling and sealants and complete with insect screens and sub-frames</u>						
20	1/AL 450 x 300 mm	No.	1				
21	2/AL 300 x 300 mm	No.	2				
22	3/AL 850 x 550 mm	No.	1				
23	4/AL 1250 x 500 mm	No.	4				
24	7/LV 1800 x 400 (type A 11/RD)	No.	1				
	Total to Section Summary						
	<u>Section B4-4350: Metalworks</u>						
	<u>Miscellaneous Metal Works</u>						
1	Roof drain outlet 100 mm diameter (7/RD)	No.	16				
2	Stainless steel counter top (14/MD) Overall size 450 x 2,000 x 40mm thick	No.	1				
3	Aluminum blind box, overall size 120mm wide x 100mm high fix to structure with hanger bolts (5E/MD)	m	77				
4	Aluminum wall trim at ceiling (5/MD); 20 x 15 x 10 x 20mm, double L section	m	115				
5	Protection pipe galvanized steel pipe w/paint P-3; H =1000 mm	No.	37				
	Total to Series Summary						

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
Section B4-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section B4-4360: Woodworks and Partition							
Miscellaneous Wood Works							
1	Timber skirting 25 mm thick 50 mm high (S-3)	m	115				
Dry Partitioning							
12mm Thick Gypsum Board double layer faced partition on light gauge steel framing (W-7, 1/MD)							
2	Partition faced both sides	m ²	69				
Cubicles (8/MD)							
3	Two unit cubicle	No.	1				
4	Urinal partition	No.	4				
Kitchen counter cabinets, as shown on the drawings; 19 mm thick MDF panel w/ high pressure laminate, including concrete slab, all necessary framing, fixing, fittings and ironmongery							
5	Floormounted; 1925 x 500 x 850 high	No.	1				
6	Wall mounted; 1925 x 450 x 1050 mm	No.	1				
Total to Series Summary							
Section B4-4370: Finishes							
In-situ Finishes							
Internal Finishes							
1	Cement render to floor; 50mm thick; to receive damp proof paint (P-6)	m ²	136				
2	Cement render to floor; 50mm thick; including surface hardener (F11)	m ²	382				
3	Cement render to floor; 42mm thick; to receive ceramic tiles (F4)	m ²	346				
4	Cement render to walls; 20mm thick; to receive paint (W3 and W4)	m ²	713				
5	Cement render to walls; 22mm thick; to receive ceramic tiles (W2)	m ²	240				
External Finishes							
6	Cement render to floor; 42mm thick; to receive ceramic tiles	m ²	11				
7	Cement render to sidewalk; 30mm thick (29/MD)	m ²	502				
8	Cement render to wall; 20mm thick to receive paint	m ²	701				
9	Cement render to concrete trellis; 20mm thick to receive paint	m ²	112				
Rigid Tile/Slab/Block							
Homogeneous Tile Covering							
10	Ceramic tiles to floors; 300 x 300 x 8 mm thick (F4)	m ²	346				
11	Ceramic tiles to wall; 300 x 300 x 8 mm thick (W2)	m ²	240				

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
Section B4-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
12	Ceramic tile to toilet coping;300x 200mm x 8mm thick; including cement render backing; 30mm thick (7/MD)	m	2				
<u>Suspended Ceilings and Bulkheads; including supports and suspension systems:</u>							
13	600 x 600 x 15mm Thick acoustic rockwool ceiling system (C-1)	m ²	276				
14	8mm Thick calcium silicate board (C-3)	m ²	18				
15	Suspended Double Ceiling: t=12.5 on t=9.5 Sheeting gypsums w/ P-1 (C6)	m ²	126				
<u>Painting/Clear Finishing</u>							
<u>Synthetic resin emulsion paint (P-1) to:</u>							
16	Cement rendered wall (W-3)	m ²	682				
17	Gypsum board ceiling	m ²	126				
<u>Synthetic resin mixed paint type A (P-2) to:</u>							
18	Wood skirting 50mm high (S-3)	m	115				
19	Wood doors	m ²	71				
<u>Synthetic resin mixed paint type B (P-3) to:</u>							
20	Steel doors	m ²	25				
21	Steel Protection pipe 150mm diameter	m ²	65				
<u>Synthetic resin emulsion multi-layer coating (P-4) to:</u>							
22	Cement rendered wall (W-4)	m ²	544				
23	Formed face concrete beams and ceiling at garage	m ²	469				
24	Cement rendered concrete trellis	m ²	112				
<u>Epoxy resin floor paint (P-6) to:</u>							
25	Cement rendered floors (F-8)	m ²	136				
<u>Acrylic resin emulsion paint (P-7) to:</u>							
26	Calcium silicate board ceiling (C-3)	m ²	18				
Total to Series Summary							
<u>Section B4-4380: Miscellaneous Fittings and Furniture</u>							
<u>Miscellaneous Item</u>							
1	Clear mirror	m ²	6				
2	Venetian blinds	m ²	108				
3	Shower curtain	m ²	3				
<u>Lavatory Counter Top; in Granite polish finish, 20mm thick; with opening for lavatory basins including supporting frame and all necessary fixations (7/MD)</u>							
Three Unit Countersunk lavatory							

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
Section B4-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
4	2500 x 600 mm Deep Two Unit Lavatory Counter	No.	1				
5	1900 x 600 mm Deep One Unit Lavatory Counter	No.	1				
6	2300 x 600 mm Deep	No.	1				
Total to Series Summary							

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
 Section B4-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B4-5000 Series: Mechanical						
	Series Summary						
	Section B4-5100 : Sanitary and Plumbing						
	Section B4-5200 : Ventilation and Air Condition						
	Section B4-5300 : Fire Protection						
	Total to Subcomponent Summary						
	Section B4- 5100 : Sanitary and Plumbing						
1	WC-3 Water closet (FT)	No.	4				
2	UR-3 Urinal	No.	4				
3	LAV-3 Under counter type lavatory	No.	6				
4	SS-1 Service sink (Slop Sink)	No.	1				
5	SHW-1 Shower set	No.	3				
6	Faucet for kitchen sink	No.	1				
7	PH-2 Toilet paper holder	No.	4				
8	Sop Holder	No.	3				
	Kitchen Equipment						
9	Electric Cooking Stove	No.	1				
	Water Distribution System						
	Piping Works						
	Pipeworks, Polyvinyl chloride pipe (High Density VP) Incl. Fittings, Hangers, Supports, Sleeves, Inserts and Accessories						
10	20 mm diameter	m	80				
11	25 mm diameter	m	21				
12	32 mm diameter	m	21				
13	40 mm diameter	m	20				
14	50 mm diameter	m	48				
	Gate Valve JIS 10 Kg/cm2						
15	40 mm diameter	No.	2				
16	50 mm diameter	No.	1				
	Water Hammer Arrester						
17	25 mm diameter	No.	1				
18	40 mm diameter	No.	2				
	Hot Water Distribution						

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
Section B4-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
19	Incl, Hangers, Supports, Inserts and Accessories. EWH - 1 Electric Water Heater - Single point (Instantaneous)	No.	3				
20	EWH - 2 Electric Water Heater - Multi point (Instantaneous)	No.	2				
Hot Water Piping Works							
Cooper Pipe, Type L							
Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories							
21	20 mm diameter	m	11				
Gate Valve JIS 10 Kg/cm2							
22	20 mm diameter	No.	5				
Sewer Piping System							
Pipeworks, Polyvinyl chloride pipe (High Density VP)							
Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories							
23	100 mm diameter	m	69				
24	75 mm diameter	m	39				
25	50 mm diameter	m	78				
Fittings							
1/8 bend							
26	100 mm diameter	m	8				
27	75 mm diameter	m	3				
28	50 mm diameter	m	10				
Wye							
29	50 mm diameter	No.	3				
30	75 x 50 mm diameter	No.	3				
31	100 x 50 mm diameter	No.	21				
1/4 Bend							
32	100 mm diameter	No.	5				
33	75 mm diameter	No.	1				
34	50 mm diameter	No.	10				
Floor / Ground Clean Out							
35	100 mm diameter	No.	3				
36	75 mm diameter	No.	4				
37	50 mm diameter	No.	2				
P - Trap							
38	50 mm diameter	No.	12				
Floor Drains							
39	50 mm diameter	No.	22				
Reducer							
40	100 x 75 mm diameter	No.	1				

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
Section B4-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
41	Tapped Tee 50 mm diameter	No.	10				
42	Grease trap @ kitchen	No.	1				
43	Oil Interceptor (for garage)	No.	1				
	Vent Pipes						
	Pipeworks, Polyvinyl chloride pipe (VU) Incl, Hangers, Supports, Sleeves, Inserts and Accessories						
44	100 mm diameter	m	18				
45	75 mm diameter	m	34				
46	50 mm diameter	m	62				
	Fittings						
	90°bend						
47	75 mm diameter	No.	20				
48	50 mm diameter	No.	51				
	90° TEE						
49	75 mm diameter	No.	20				
50	50 mm diameter	No.	51				
51	100 x 75 mm diameter	No.	20				
52	100 x 50 mm diameter	No.	51				
53	75 x 50 mm diameter	No.	51				
	Reducer						
54	100 x 75 mm diameter	No.	1				
55	100 x 50 mm diameter	No.	1				
56	75 x 50 mm diameter	No.	5				
	Storm Drain						
	Pipe works						
	Above Ground						
	Galvanized carbon steel pipe ASTM Sch-40 Incl, Hangers, Supports, Sleeves, Inserts and Accessories						
57	100 mm diameter	m	48				
	Under Ground						
	Polyvinyl chloride pipe (VP) Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories						
58	200 mm diameter	m	33				
59	150 mm diameter	m	68				
60	100 mm diameter	m	45				
61	50 mm diameter	m	33				
	Fittings GI)						
	90°bend						
62	100 mm diameter	No.	44				

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
Section B4-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
63	45°bend 100 mm diameter	No.	38				
64	Wye 100 mm diameter	No.	4				
65	Roof Drains 100 mm diameter	No.	14				
66	Garter Drains 50 mm diameter	No.	12				
67	Catch Basin	No.	10				
68	Catch Basin Cover	No.	10				
Total to Series Summary							
Section B4-5200 : Ventilation and Air Condition							
Equipment Incl, Hangers, Vibration Isolator, Supports, Inserts and Accessories.							
1	Ceiling suspended split AC Unit Cooling Capacity 12.3 kW	No.	1				
2	Ceiling suspended split AC Unit Cooling Capacity 10.2 kW	No.	1				
3	Ceiling suspended split AC Unit Cooling Capacity 8.78 kW	No.	2				
4	Wall mounted split AC Unit Cooling Capacity 7 kW	No.	1				
5	Wall mounted split AC Unit Cooling Capacity 5.3 kW	No.	1				
6	Wall mounted split AC Unit Cooling Capacity 3.5 kW	No.	1				
Refrigerant pipes copper pipes type "L" Incl, Fittings, Hangers, Supports, Sleeves, Inserts, and Accessories							
7	6.35mm diameter	m	24				
8	9.53mm diameter	m	64				
9	15.88m diameter	m	24				
10	19.05mm diameter	m	64				
Thermal Insulation Closed cell elastomeric thermal insulation							
11	6.35mm diameter t = 30mm	m	24				
12	9.53mm diameter t = 30mm	m	64				
13	15.88m diameter t = 30mm	m	24				
14	19.05mm diameter t = 30mm	m	64				
Filter Drier							

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
Section B4-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
15	6.35mm diameter	No.	1				
16	9.53mm diameter	No.	4				
	Moisture Indicator						
17	6.35mm diameter	No.	1				
18	9.53mm diameter	No.	4				
	Condensate Drain Piping: PVC Pipes(VP)						
	Incl, Fittings, Hangers, Supports, Sleeves, Inserts, and Accessories						
19	25mm diameter	m	150				
20	50mm diameter	m	24				
	Condensate Drain Insulation:						
	Closed cell elastomeric thermal insulation						
21	50mm diameter, t = 20mm	m	24				
22	25mm diameter, t = 20mm	m	150				
	Aluminum Cladding						
23	Aluminum sheet (Ga #26)	m2	72				
	Mechanical ventilation System						
	Equipment						
	Incl, Hangers, Vibration Isolator, Supports, Inserts and Accessories.						
	Exhaust Fans						
24	In-line Axial Fan Direct Driven Q=802 lps	No.	1				
25	In-line Axial Fan Direct Driven Q=849 lps	No.	2				
26	In-line Axial Fan Direct Driven Q=714 lps	No.	2				
27	In-line Axial Fan Direct Driven Q=481 lps	No.	1				
28	In-line Axial Fan Direct Driven Q=360 lps	No.	1				
29	In-line Axial Fan Direct Driven Q=604 lps	No.	1				
30	In-line Axial Fan Direct Driven Q=340 lps	No.	1				
31	In-line Axial Fan Direct Driven Q=226 lps	No.	1				
	Duct Works						
	(Incl, Hangers, Supports, Sleeves, Inserts, and Accessories)						
	G.I sheets						
32	0.6mm (Ga. #24)	m2	150				
33	0.8mm (Ga. #22)	m2	240				
	Exhaust Air Grilles (EA)						

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
 Section B4-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
34	300x300mm	No.	7				
35	400x400mm	No.	9				
36	800x500mm	No.	1				
	<u>Exhaust Air Louvers (EA)</u>						
37	400x300mm	No.	7				
38	500x400mm	No.	9				
39	1000x500mm	No.	1				
	<u>Volume Damper</u>						
40	150x150mm	No.	16				
41	200x200mm	No.	8				
	<u>Backdraft Damper</u>						
42	200x200mm	No.	1				
43	300x200mm	No.	3				
	Total to Series Summary						
	<u>Section B4- 5300 : Fire Protection</u>						
1	Fire hose cabinet c/w valve, 40mm diameter x 30m fire hose w/ fog nozzle, hose rack and 4.5kg ABC type fire extinguisher	No.	1				
	<u>Portable Fire Extinguisher</u>						
2	ABC Type, 4.5kg	No.	2				
3	CO2 Type, 9.0kg	No.	2				
4	CO2 Type, 23.0kg	No.	1				
5	Fire extinguisher bracket W/housing	No.	5				
	Total to Series Summary						

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
 Section B4-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-4: (B4) Electrical Works Series Summary Section B4-6100: Power Feeder System Section B4-6200: Lighting And Receptacle Section B4-6300: Telephone And Data System Section B4-6400: Cable TV System Section B4-6600: Master Clock System Section B4-6800: Fire Detection And Alarm Section B4-6900: Lightning Protection and Grounding System Total to Subcomponent Summary						
	<u>Section B4-6100: Power Feeder System</u> 1 MDPN No. 1 2 LPPN No. 1 3 VACN No. 1 4 MDPNE No. 1 5 LPPNE No. 1 6 FTCNE No. 1 7 1C-35mm ² XLPE m 20 8 1C-10mm ² XLPE m 35 9 1C-4mm ² XLPE m 20 10 14mm ² TW m 10 11 8mm ² TW m 15 12 5.5mm ² TW m 10 13 500mm (W) cable ladder m 10 14 150mm (W) wireway m 55 Total to Series Summary						
	<u>Section B4-6200: Lighting And Receptacle</u> <u>Lighting Fixtures</u> 1 2 x 36W Fluorescent Fixture, industrial type No. 16 2 1 x 36W Fluorescent Fixture, batten type No. 8 3 4 x 18W Fluorescent Fixture, louver type No. 51						

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
Section B4-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
4	18W PLC	No.	34				
	<u>Wiring Devices & Receptacle</u>						
5	Duplex Convenience outlet, wall mounted	No.	26				
6	Hand Dryer outlet	No.	2				
7	1 - gang single throw switch	No.	38				
8	2 - gang single throw switch	No.	1				
9	30AT, 100AF, 2P ECB	No.	7				
10	40AT, 100AF, 2P ECB	No.	2				
	<u>Wires & Cables</u>						
11	3.5mm ² THHN	m	5300				
12	5.5mm ² THHN	m	1250				
13	8mm ² THHN	m	180				
	<u>Conduits</u>						
14	15mm dia	m	1600				
15	20mm dia	m	40				
	Total to Series Summary						
	<u>Section B4-6300: Telephone and Data System</u>						
	<u>Equipment & Devices</u>						
1	Telephone outlet w/ RJ11	No.	9				
2	Single Line Telephone	No.	4				
3	Terminal Board (TB-FSM)	No.	1				
	<u>Wires & Cables</u>						
4	4P CAT 5e UTP CABLE (interconnection)	m	411				
	<u>Conduits</u>						
5	15 mm dia	m	22				
6	20 mm dia	m	42				
7	25 mm dia	m	71				
	Total to Series Summary						
	<u>Section B4-6400: Cable TV System</u>						
	<u>Equipment / Devices</u>						
1	Voltage down adapter	No.	1				
2	4 - Way splitter	No.	1				

Subcomponent-4-4: (B4) Fire Station and Airport Maintenance & Administration Building
Section B4-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
3	Wall Outlet (For in out)	No.	2				
4	Wall Outlet (For inns)	No.	1				
5	Terminator	No.	1				
	<u>Wires & Cables</u>						
6	RG6 Coaxial cable (interconnection)	m	75				
	<u>Conduits</u>						
7	20 mm dia	m	90				
	Total to Series Summary						
	<u>Section B5-6600: Master Clock System</u>						
	<u>Equipment / Devices</u>						
1	Single Faced Analog Slaved Clock		(Included in N1-8300)				
	<u>Wires & Cables</u>						
2	1.25 mm ² TF wires (interconnection)	m	104				
	<u>Conduits</u>						
3	15 mm dia	m	100				
	Total to Series Summary						
	<u>Section B5-6800: Fire Detection And Alarm</u>						
	<u>Equipment / Devices</u>						
1	Smoke detector	No.	16				
2	Heat Detector	No.	3				
3	Fire alarm bell	No.	2				
4	Manual Fire Alarm Station	No.	2				
5	Remote Annunciator Panel	No	1				
6	Fireman's Telephone Jack w/ Handset	No	1				
7	Fire Alarm Terminal Cabinet (FATC-FSM)	No	1				
	<u>Wires & Cables</u>						
8	1.25 mm ² TF Wires (interconnection)	m	124				
	<u>Conduits</u>						
9	15 mm dia	m	175				
	Total to Series Summary						
	<u>Section B4-6900: Grounding System</u>						
1	Grounding System	Sum	1				
	Total to Series Summary						

BILL OF QUANTITIES
OF
SUBCOMPONENT-4-B5:

Ancillary Buildings

- B51: Drivers Lounge**
- B52: Car Park Toilet**
- B53: Guard Houses**
- B54: Toll Booths**

Subcomponent-4-5: (B5) Ancillary Buildings

Subcomponent 4-B5 Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-5:(B5)Ancillary Buildings Summary						
	Subcomponent Summary						
	4-51: Drivers Lounge						
	4-52: Car Park Toilet						
	4-53: Guard Houses						
	4-54: Toll Booths						
	Total to Component Summary						

Subcomponent-4-5: (B5) Ancillary Buildings

B51: Drivers Lounge

Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-5: (B5) Ancillary Buildings						
	B51: Drivers Lounge Summary						
	Section B51-4000 Series: Architectural Works						
	Section B51-5000 Series : Mechanical Works						
	Section B51-6000 Series : Electrical Works						
	Total to Subcomponent Summary						

Subcomponent-4-5: (B5) Ancillary Buildings

B51: Drivers Lounge

Section B51-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B51-4000 Series : Architectural						
	Series Summary						
	Section B51-4110 : Earthwork						
	Section B51-4120 : Termite Control						
	Section B51-4220 : Concrete Works						
	Section B51-4320 : Waterproofing						
	Section B51-4350 : Metalworks						
	Section B51-4370 : Finishes						
	Section B51-4380 : Miscellaneous Fittings and Furniture						
	Total to B51 Drivers Lounge Summary						
	Section 4110 : Earthwork						
	Normal Excavation						
1	Column foundations	m ³	3				
2	Ground beams	m ³	9				
	Excavation in Rock						
3	Column foundations	m ³	1				
4	Ground beams	m ³	2				
	Filling						
5	Backfilling to foundations	m ³	13				
	Filling/Compaction						
6	Gravel bed; 50mm thick	m ²	180				
7	Gravel bed; 50mm thick to external sidewalk (29/MD)	m ²	108				
8	Polythylene waterproof membrane	m ²	161				
	Total to Series Summary						
	Section 4120 : Termite Control						
1	Soil treatment	m ²	323				
	Total to Series Summary						
	Section 4220 : Concrete Works						
	Plain Concrete Class B3 in:						
1	Blinding concrete;50mm thk	m ³	9				
2	Blinding layer; 50 mm thick to external sidewalk (29/MD)	m ³	6				
	Reinforced Concrete Class B1 in:						
3	Column foundations	m ³	4				

Subcomponent-4-5: (B5) Ancillary Buildings

B51: Drivers Lounge

Section B51-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
4	Ground beams	m ³	6				
5	Columns	m ³	9				
6	Beams	m ³	7				
7	Parapet	m ³	11				
8	Suspended slabs	m ³	17				
	Reinforced Concrete Class B2 in:						
9	Ground floor slab	m ³	24				
10	Base slab to external sidewalk (29/MD)	m ³	11				
	Formwork						
	Class F1 Formwork in:						
11	Column foundations	m ²	17				
12	Ground beams	m ²	50				
13	Columns	m ²	90				
14	Beams	m ²	7				
15	Fascia wall	m ²	148				
16	Suspended slabs	m ²	45				
17	Ground slabs	m ²	8				
	Class F1 Formwork in:						
18	Suspended slabs	m ²	47				
19	Parapet	m ²	58				
	Reinforcement						
	Reinforcement bars - (grade 40, = 276 N/mm²)						
20	10 mm ~ 12mm	kg	4,160				
	Reinforcement bars - (grade 60, = 415 N/mm²)						
21	16 mm ~ 25 mm	kg	3,381				
	Total to Series Summary						
	Section 4320 : Waterproofing						
	Waterproofing Membrane						
	Built-up Bitumen Felt Water Proofing System: WP-1						
1	Waterproofing system with insulation applied to roof surface (1/RD)	m ²	92				
2	Waterproofing system applied to parapet wall (1/RD)	m ²	12				
3	50mm Thick protection concrete with 4mm dia at 100mm welded wire mesh in steel trowel finish (1/RD)	m ²	92				
4	25mm Wide contraction gap w/ sealant in protection concrete (1/RD)	m	63				
5	350mm Wide steel trowel finish roof ditch with metal lathe	m	12				

Subcomponent-4-5: (B5) Ancillary Buildings

B51: Drivers Lounge

Section B51-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Total to Series Summary							
Section 4350 : Metalworks							
1	Roof drain outlet 100mm diameter	No.	2				
Total to Series Summary							
Section B51-4370 : Finishes							
In-situ Finishes							
1	Cement render to floors; 20mm thick, to receive granite tiles	m ²	96				
2	Cement render to walls; 20mm thick to receive paint (W3)	m ²	32				
3	Cement render to sidewalk 30mm thick (32/MD)	m ²	222				
Rigid Tile/Slab/Block							
Ceramic Tile Covering							
4	Ceramic tiles to floors; 300 x 300 x 8mm thick (F-3)	m ²	96				
Suspended Ceilings; including supports and suspension system							
5	600 x 600 x 15mm Thick acoustic rockwool ceiling system (C-1)	m ²	32				
Painting/Clear Finishing							
Synthetic Resin Emulsion Multi-layer Coating (P-4) to:							
6	Cement rendered external walls	m ²	72				
7	Soffit of roof slab, beams and parapet	m ²	73				
Total to Series Summary							

Subcomponent-4-5: (B5) Ancillary Buildings

B51: Drivers Lounge

Section B51-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B51-5000 Series: Mechanical						
	Series Summary						
	Section B51-5100 : Sanitary and Plumbing						
	Section B51-5300 : Fire Protection						
	Total to B51: Drivers Lounge Summary						
	Section 5100 : Sanitary and Plumbing						
	Water Distribution System						
	Pipework, Polyvinyl chloride pipe (High Density VP)						
	Incl, Fittings, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories						
1	20mm diameter	m	9				
2	Faucet	No.	1				
3	Drain Trap	No.	1				
4	Gate valve	No.	2				
5	Water meter; 20 mm dia.	No.	1				
6	Meter Box, 20 mm diameter	No.	2				
7	Water Hammer Arrester	No.	2				
	Sewer Piping System						
	Pipeworks/Accessories						
	Pipework, Polyvinyl chloride pipe (High Density VP)						
	Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories						
8	75mm diameter	m	10				
	Floor Clean Out						
9	75mm diameter	No.	1				
	Storm Drain						
	Above Ground						
	Galvanized carbon steel pipe ASTM Sch-40						
10	100 mm diameter	m	8				
	Under Ground						
	Pipework, Polyvinyl chloride pipe (VP)						
	Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories						
11	100 mm diameter	m	14				
	Roof Drain						
12	100 mm diameter	No.	2				
13	Catch Basin w/Cover	No.	2				
	Total to Section Summary						

Subcomponent-4-5: (B5) Ancillary Buildings

B51: Drivers Lounge

Section B51-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section 5300 : Fire Protection							
Portable Fire Extinguisher							
1	ABC Type, 4.5 kg	No.	1				
2	Fire extinguisher bracket W/housing	No.	1				
Total to Section Summary							

Subcomponent-4-5: (B5) Ancillary Buildings

B51: Drivers Lounge

Section B51-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section B51-6000 Series: Electrical Works</p> <p style="text-align: center;">Series Summary</p> <p>Section B51-6100: Power Feeder System</p> <p style="text-align: center;">Total to B51 Drivers Lounge Summary</p>						
	<p><u>Section B51-6100: Power Feeder System</u></p> <p><u>Lighting Fixtures</u></p> <p>1 1 x 18W PLC No. 12</p> <p>2 1 x 18W PLC (Outdoor type) No. 6</p> <p><u>Wiring Devices & Receptacle</u></p> <p>1 Duplex Convenience Outlet, Weather Proof No. 4</p> <p>2 One - gang switch No. 1</p> <p>3 Two-gang switch No. 1</p> <p><u>Wires & Cables</u></p> <p>1 3.5mm² THHN m 500.00</p> <p><u>Conduits</u></p> <p>1 15mm dia m 200.00</p> <p style="text-align: center;">Total to Series Summary</p>						

Subcomponent-4-5: (B5) Ancillary Buildings

B52: Car Park Toilet

Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-5: (B5) Ancillary Buildings						
	B52: Car Park Toilet Summary						
	Section B52-4000 Series : Architectural Works						
	Section B52-5000 Series : Mechanical Works						
	Section B52-6000 Series : Electrical Works						
	Total to Subcomponent Summary						

Subcomponent-4-5: (B5) Ancillary Buildings

B52: Car Park Toilet

Section B52-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B52-4000 Series: Architectural Works						
	Series Summary						
	Section B52-4110 : Earthwork						
	Section B52-4120 : Termite Control						
	Section B52-4220 : Concrete Works						
	Section B52-4310 : Blockworks						
	Section B52-4320 : Waterproofing						
	Section B52-4340 : Windows/Doors						
	Section B52-4350 : Metalworks						
	Section B52-4360 : Woodwork and Partitions						
	Section B52-4370 : Finishes						
	Section B52-4380 : Miscellaneous Fittings and Furniture						
	Total to B52 Car Park Toilet Summary						
	Section B52-4110 : Earthwork						
	Normal Excavation						
1	Column foundation	m ³	16				
2	Ground beams	m ³	2				
	Excavation in Rock						
3	Column foundation	m ³	4				
4	Ground beams	m ³	1				
	Filling						
5	Backfilling to excavations	m ³	21				
	Filling/Compaction						
6	Gravel bed; 50mm thick	m ²	38				
7	Gravel bed; 50mm thick to external sidewalk (29/MD)	m ²	106				
8	Polythylene waterproof membrane	m ²	21				
	Total to Series Summary						
	Section 52-4120 : Termite Control						
1	Soil treatment	m ³	156				
	Total to Series Summary						
	Section 52-4220 : Concrete Works						
	Plain Concrete Class B3 in:						
1	Blinding concrete; 50mm thick	m ³	2				
2	Blinding concrete; 50mm thick external sidewalk (29/MD)	m ³	2				

Subcomponent-4-5: (B5) Ancillary Buildings

B52: Car Park Toilet

Section B52-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
3	Reinforced Concrete Class B1 in: Column foundations	m ³	3				
4	Ground beams	m ³	3				
5	Columns	m ³	2				
6	Beams	m ³	6				
7	Parapet	m ³	5				
8	Suspended slabs	m ³	3				
9	Reinforced Concrete Class B2 in: Ground floor slab	m ³	3				
10	Base slab to external sidewalk (29/MD)	m ³	11				
	Formwork						
	Class F1 Formwork in:						
11	Column foundations	m ²	9				
12	Ground beams	m ²	26				
13	Columns	m ²	32				
14	Beams	m ²	63				
15	Parapet	m ²	32				
16	Ground slab	m ²	3				
17	Suspended slab	m ²	9				
	Class F3 Formwork in:						
18	Suspended slab	m ²	16				
19	Parapet	m ²	32				
	Reinforcement						
	Reinforcement bars - (grade 40, = 276 N/mm²)						
20	10 mm ~ 12 mm	kg	1,484				
	Reinforcement bars - (grade 40, = 414 N/mm²)						
21	16 mm ~ 25 mm	kg	1,088				
	Total to Series Summary						
	<u>Section B52-4310 : Blockworks</u>						
	Hollow Concrete Block						
1	Wall; 150 mm thick	m ²	84				
2	Wall; 100 mm thick	m ²	2				
	<u>Reinforced Concrete Class B2 in Lintels and Stiffeners</u>						
3	Lintel beam above opening; 150 x 200mm including formwork and reinforcement	m	3				
4	Stiffener beam; 150 x 300mm including	m	20				

Subcomponent-4-5: (B5) Ancillary Buildings

B52: Car Park Toilet

Section B52-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
5	formwork and reinforcement Stiffener column; 150 x 300mm including formwork and reinforcement	m	6				
Total to Series Summary							
Section B52-4320 : Waterproofing							
Waterproofing Membrane							
Built-up Bitumen Felt Water Proofing System; WP-1							
1	Waterproofing system with insulation applied to roof surface (1/RD)	m ²	35				
2	Waterproofing system applied to parapet wall (1/RD)	m ²	30				
3	50mm Thick protection concrete with 4mm dia. At 100mm welded wire mesh in steel trowel finish (1/RD)	m ²	35				
4	25mm Wide contraction gap w/ sealant in protection concrete (1/RD)	m	5				
5	350mm Wide steel trowel finish roof ditch with metal lath	m	9				
Total to Series Summary							
Section 52-4340 : Windows/Doors							
STEEL DOOR SETS : flush type as shown on door & window schedule drawing : including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling							
1	1/SD 900 x 2100 mm w/ louver	No.	2				
ALUMINIUM WINDOWS WITH INSECT SCREENS: as shown on Drawings, including glazing, beads, gaskets, ironmongery, thresholds, frame set and fixing lug, mortar bedding/filling and sealants							
2	1/AW 1800 x 700 mm	No.	1				
3	2/AW 1200 x 700 mm	No.	1				
Total to Series Summary							
Section B52-4350 : Metalworks							
1	Roof drain outlet 75 mm diameter (11/RD)	No.	2				
Total to Section Summary							
Section 52-4360 : Woodwork and Partitions							
Cubicles (8/MD)							
1	Two unit cubicle	No.	2				
2	Urinal partition	No.	1				
Total to Series Summary							
Section B52-4370 : Finishes							

Subcomponent-4-5: (B5) Ancillary Buildings

B52: Car Park Toilet

Section B52-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	In-situ Internal Finishes						
1	Cement render to floor; 42 mm thick to receive ceramic tiles (F3)	m ²	23				
2	Cement render to walls; 22mm thick to receive ceramic tiles (W1)	m ²	63				
	In-situ External Finishes						
3	Cement render to walls; 20mm thick to receive paint (W4)	m ²	66				
	Ceramic Tile Covering						
4	Ceramic tiles to floors; 300 x 300 x 8 mm thick	m ²	23				
5	Ceramic tiles to wall; 300 x 300 x 8 mm thick	m ²	63				
6	200mm Wide x 8mm thick toilet coping in polish finish (7/MD)	m	2				
	Suspended Ceilings and Bulkheads; including supports and suspension system						
7	Suspended double ceiling; t=12.5 mm on t=9.5 sheeting gypsum with P1 (C-11)	m ²	21				
	Painting/Clear Finishing						
	Synthetic Resin Mixed Paint Type B (P-7) to:						
8	100m uPVC downspout pipe	m	6				
9	Steel doors	m ²	5				
	Synthetic Resin Emulsion Multi-layer Coating (P-4) to:						
10	Blockwork walls	m ²	66				
	Total to Series Summary						
	Section B52-4380 : Miscellaneous Fittings and Furniture						
1	Clear mirror	m ²	3				
	Total to Series Summary						

Subcomponent-4-5: (B5) Ancillary Buildings

B52: Car Park Toilet

Section B52-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B52-5000 Series: Mechanical						
	Series Summary						
	Section B52-5100 : Sanitary and Plumbing						
	Section B52-5200 : Ventilation and Air Condition						
	Total to B52 Car Park Toilet Summary						
	Section 5100 : Sanitary and Plumbing						
	Sanitary Fixtures						
1	WC-3 Water closet (FT)	No.	4				
2	UR-3 Urinal	No.	2				
3	LAV-3 Under counter type lavatory	No.	4				
4	Hose Bib	No.	1				
5	PH-2 Toilet paper holder	No.	4				
	Water Distribution System						
	Piping Works						
	Pipework, Polyvinyl chloride pipe (High Density VP) Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories						
6	20 mm diameter	m	7				
7	25 mm diameter	m	4				
8	32 mm diameter	m	13				
9	40 mm diameter	m	1				
10	50 mm diameter	m	2				
11	65 mm diameter	m	4				
	Gate Valve JIS 10 Kg/cm2						
12	20 mm diameter	No.	1				
13	25 mm diameter	No.	1				
14	32 mm diameter	No.	1				
15	40 mm diameter	No.	1				
16	50 mm diameter	No.	1				
17	65 mm diameter	No.	1				
18	Water Hammer Arrestor	No.	2				
	Sewer Piping System						
	Pipeworks/Accessories						
	Pipework, Polyvinyl chloride pipe (High Density VP) Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories						

Subcomponent-4-5: (B5) Ancillary Buildings

B52: Car Park Toilet

Section B52-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
19	100 mm diameter	m	16				
20	75 mm diameter	m	1				
21	50 mm diameter	m	6				
	Fittings (GI)						
	1/8 bend						
22	100 mm diameter	No.	2				
23	100 x 75 mm diameter	No.	1				
24	100 x 50 mm diameter	No.	6				
	Wye						
25	100 mm diameter	No.	1				
26	100 x 75 mm diameter	No.	1				
27	100 x 50 mm diameter	No.	3				
	1/4 Bend						
28	100 mm diameter	No.	1				
29	50 mm diameter	No.	2				
	Floor / Ground Clean Out						
30	100 mm diameter	No.	4				
	P - Trap						
31	50 mm diameter	No.	5				
	Floor Drains						
32	50 mm diameter	No.	3				
	Vent Pipes						
	Pipework, Polyvinyl chloride pipe (VU)						
	Incl, Hangers, Supports, Sleeves, Inserts and Accessories						
33	100 mm diameter	m	57				
34	75 mm diameter	m	13				
35	50 mm diameter	m	47				
	Fittings						
	90° Bend						
36	100 mm diameter	No.	2				
37	75 mm diameter	No.	1				
38	50 mm diameter	No.	6				
	90° TEE						
39	100 mm diameter	No.	1				
40	75 mm diameter	No.	1				
41	50 mm diameter	No.	5				
	Reducer						
42	75 x 50 mm diameter	No.	1				
43	100 x 75 mm diameter	No.	2				

Subcomponent-4-5: (B5) Ancillary Buildings

B52: Car Park Toilet

Section B52-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Storm Drain						
	Above Ground						
	Galvanized carbon steel pipe ,ASTM Sch-40						
44	Incl, Hangers, Supports, Sleeves, Inserts and Accessories 100 mm diameter	m	18				
	Under Ground						
	Pipework, Polyvinyl chloride pipe (VP)						
45	Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories 100 mm diameter	m	25				
	Fittings						
	90° Bend						
46	100 mm diameter	No.	1				
47	75 mm diameter	No.	1				
	45° Bend						
48	100 mm diameter	No.	3				
49	75 mm diameter	No.	1				
	Wye						
50	100 mm diameter	No.	1				
51	75 mm diameter	No.	1				
	Roof Drains						
52	100 mm diameter	No.	4				
53	Catch Basin	No.	4				
54	Catch Basin Cover	No.	4				
	Total to Section Summary						
	Section 5200 : Ventilation and Air Condition						
	Equipment						
	Exhaust Fans						
	Incl, Hangers, Vibration Isolator, Supports, Inserts and Accessories.						
1	Ceiling Cassette Exhaust Fans, Q = 150 lps w/ Integral Backdraft Damper	No.	3				
	Duct Works						
	G.I sheets						
	(Incl, Hangers, Supports, Sleeves, Inserts, and Accessories)						
2	0.8 mm (Ga. # 22)	m ²	12				
	Exhaust Air Louvers (EA)						
3	300Ø Aluminum Vent Cap ventilation and air-conditioning system	No.	2				
	Total to Section Summary						

Subcomponent-4-5: (B5) Ancillary Buildings

B52: Car Park Toilet

Section B52-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section B52-6000 Series: Electrical Works</p> <p style="text-align: center;">Series Summary</p> <p>Section B52-6100: Power Feeder System</p> <p>Section B52-6200: Lighting And Receptacle</p> <p style="text-align: center;">Total to B52 Car Park Toilet Summary</p>						
1	<p><u>Section B52-6100: Power Feeder System</u></p> <p>DRLN</p> <p style="text-align: center;">Total to Series Summary</p>	No.	1				
	<p><u>Section B52-6200: Lighting And Receptacle</u></p> <p><u>Lighting Fixtures</u></p> <p>1 1 x 18W PLC</p> <p>2 1 x 18W PLC (Outdoor type)</p> <p>3 Hand Dryer Outlet</p> <p>4 One - gang switch</p> <p>5 Two-gang switch</p> <p>6 Three-Gang Switch</p> <p><u>Wires & Cables</u></p> <p>7 3.5mm² THHN</p> <p><u>Conduits</u></p> <p>8 15mm dia</p> <p style="text-align: center;">Total to Series Summary</p>	No.	7				
		No.	2				
		No.	2				
		No.	1				
		No.	2				
		No.	1				
		m	300				
		m	100				

Subcomponent-4-5: (B5) Ancillary Buildings

B53: Guard Houses

Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-5: (B5) Ancillary Buildings						
	B53: Guard Houses Summary						
	Section 4000 Series : Architectural Works						
	Section 5000 Series : Mechanical Works						
	Section 6000 Series : Electrical Works						
	Total to Subcomponent Summary						

Subcomponent-4-5: (B5) Ancillary Buildings

B53: Guard Houses

Section B53-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B53-4000 Series: Architectural Works						
	Series Summary						
	Section B53-4110 : Earthwork						
	Section B53-4120 : Termite Control						
	Section B53-4220 : Concrete Works						
	Section B53-4310 : Blockworks						
	Section B53-4320 : Waterproofing						
	Section B53-4340 : Windows/Doors						
	Section B53-4350 : Metalworks						
	Section B53-4370 : Finishes						
	Section B53-4380 : Miscellaneous Fittings and Furniture						
	Total to B53 Guard Houses Summary						
	Guardhouses Type 1 (3 Units) and Type 2 (5Units)						
	Section B53-4110 : Earthwork						
	Normal Excavation						
1	Column foundations	m ³	54				
	Excavation in Rock						
2	Column foundations	m ³	14				
	Filling						
3	Backfilling to excavations	m ³	55				
	Filling/Compaction						
4	Gravel bed; 50mm thick	m ²	114				
5	Gravel bed; 50mm thick to external sidewalk (29/MD)	m ²	513				
6	Polythylene waterproof membrane	m ²	41				
	Total to Series Summary						
	Section B53-4120 : Termite Control						
1	Soil treatment	m ²	592				
	Total to Series Summary						
	Section B53-4220 : Concrete Works						
	Plain Concrete Class B3 in:						
1	Blinding concrete; 50mm thick	m ³	5				
2	Blinding concrete; 50mm thick to external sidewalk (29/MD)	m ³	26				
	Reinforced Concrete Class B1 in:						
3	Column foundations	m ³	22				
4	Columns	m ³	11				

Subcomponent-4-5: (B5) Ancillary Buildings

B53: Guard Houses

Section B53-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
5	Beams	m ³	5				
6	Suspended slabs	m ³	5				
7	Parapet and canopy	m ³	10				
Reinforced Concrete Class B2 in:							
8	Ground floor slab	m ³	7				
9	Base slab to external sidewalk (29/MD)	m ³	51				
Formwork							
Class F1 Formwork in:							
10	Column foundation	m ²	29				
11	Columns	m ²	152				
12	Beams	m ²	62				
13	Ground slab	m ²	7				
Class F3 Formwork in:							
14	Parapet and canopy	m ²	127				
Reinforcement							
Reinforcement bars - (grade 40, = 276 N/mm²)							
15	10 mm ~ 12 mm	kg	3,169				
Reinforcement bars - (grade 60, = 415 N/mm²)							
16	16 mm ~ 25 mm	kg	841				
Total to Series Summary							
Section B53-4310 : Blockworks							
Hollow Concrete Block							
1	Wall; 150mm thick	m ²	181				
Reinforced Concrete Class B2 in Lintels and Stiffeners							
2	Lintel beam above opening; 150 x 200mm including formwork and reinforcement	m	18				
3	Stiffener beam; 150 x 300mm including formwork and reinforcement	m	13				
4	Stiffener column; 150 x 300mm including formwork and reinforcement	m	56				
Total to Series Summary							
Section B53-4320 : Waterproofing							
Waterproofing Membrane							
Built-up Bitumen Felt Water Proofing System; WP-1							
1	Waterproofing system with insulation applied to roof surface (1/RD)	m ²	60				
2	Waterproofing system applied to parapet wall (1/RD)	m ²	49				
3	50mm Thick protection concrete with 4mm dia. 100mm welded wire mesh in steel trowel finish	m ²	60				

Subcomponent-4-5: (B5) Ancillary Buildings

B53: Guard Houses

Section B53-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
4	350mm Wide steel trowel finish roof ditch with metal lath metal lathe	m	14				
Total to Series Summary							
Section B53-4340 : Windows/Doors							
<u>WOOD DOOR SETS: flush type ; as shown on door & window schedule drawing; including all ironmongery, louvers, openings, wood frames and beads and all fixing lugs, mortar bedding/filling and sealants</u>							
1	1/WD 600 x 2100 mm w/ louver	No.	5				
<u>STEEL DOOR SETS ; flush type as shown on door & window schedule drawing : including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling</u>							
2	1/SD 900 x 2100 mm	No.	8				
<u>ALUMINIUM WINDOWS WITH INSECT SCREENS; as shown on Drawings, including glazing, beads, gaskets, ironmongery, thresholds, frame set and fixing lug, mortar bedding/filling and sealants</u>							
3	1/AW 2192(865) x 1200 mm w/ insect screen	No.	8				
4	2/AW 520 x 400 mm w/ insect screen	No.	8				
5	3/AW 600 x 1200 mm	No.	8				
Total to Series Summary							
Section B53-4350 : Metalworks							
1	Roof drain outlet 100mm diameter (11/RD)	No.	8				
Total to Series Summary							
Section B53-4370 : Finishes							
In-situ Internal Finishes							
1	Cement render to floor; 50mm thick to receive damp proof paint P=6 (F8)	m ²	33				
2	Cement render to floor; 42mm thick to receive ceramic tiles (F4)	m ²	8				
3	Cement render to walls; 22mm thick to receive ceramic tiles (W2)	m ²	44				
4	Cement render to walls; 20mm thick to receive paint (W3)	m ²	129				
In-situ External Finishes							
5	Cement render to walls; 20mm thick to receive paint (W4) receive paint (W4)	m ²	129				
Ceramic Tiles Covering							
6	Ceramic tile to floors; 300 x 300 x 8mm thick	m ²	8				

Subcomponent-4-5: (B5) Ancillary Buildings

B53: Guard Houses

Section B53-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
7	Ceramic tile to wall; 300 x 300 x 8mm thick	m ²	44				
	Suspended Ceilings and Bulkheads; including supports and suspension system						
8	Suspended Double Ceiling: t=12.5 on t=9.5 Sheathing gypsums w/ P-1 (C11)	m ²	40				
	Painting/Clear Finishing						
	Synthetic Resin Emulsion Paint (P-1) to:						
9	Cement rendered wall (W3)	m ²	129				
	Synthetic Resin Mixed Paint Type A (P-2) to:						
10	Wood doors	m ²	20				
	Synthetic Resin Mixed Paint Type B (P-3) to:						
11	Steel doors	m ²	20				
	Synthetic Resin Emulsion Multi-layer Coating (P-4) to:						
12	Cement rendered walls	m ²	129				
	Epoxy Resin Floor Paint (P-6) to:						
13	Cement rendered floors (F8)	m ²	33				
	Total to Series Summary						
	Section B53-4380 : Miscellaneous Fittings and Furniture						
1	Wood counter, overall size 400 x 2350 x 40mm thick in melamine finish	No.	8				
2	Built-in wooden locker, 695 x 2100 mm x 450mm	No.	4				
	Total to Series Summary						

Subcomponent-4-5: (B5) Ancillary Buildings

B53: Guard Houses

Section B53-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B53-5000 Series: Mechanical Works						
	Series Summary						
	Section B53-5100 : Sanitary and Plumbing						
	Section B53-5200 : Ventilation and Air Condition						
	Section B53-5300 : Fire Protection						
	Total to B53 Guard Houses Summary						
	Section 5100 : Sanitary and Plumbing						
	<u>Sanitary Fixtures</u>						
1	WC-3 Water closet	No.	5				
2	LAV-3 Under counter type lavatory	No.	5				
3	PH-2 Toilet paper holder	No.	5				
	Water Distribution System						
	<u>Piping Works</u>						
	Pipework, Polyvinyl chloride pipe (High Density VP) Incl. Fittings, Hangers, Supports, Sleeves, Inserts and Accessories						
4	20 mm diameter	m	12				
5	25 mm diameter	m	8				
6	32 mm diameter	m	4				
7	40 mm diameter	m	40				
	Gate Valve JIS 10 Kg/cm2						
8	40 mm diameter	No.	4				
9	Water Hammer Arrester	No.	4				
	<u>Sewer Piping System</u>						
	<u>Pipeworks/Accessories</u>						
	Pipework, Polyvinyl chloride pipe (High Density VP) Incl. Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories						
10	100 mm diameter	m	100				
11	50 mm diameter	m	24				
	Fittings						
	1/8 bend						
12	100 mm diameter	No.	12				
13	50 mm diameter	No.	16				
	Wye						
14	100 mm diameter	No.	4				

Subcomponent-4-5: (B5) Ancillary Buildings

B53: Guard Houses

Section B53-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
15	100 x 50mm diameter	No.	8				
	1/4 Bend						
16	100 mm diameter	No.	8				
17	50 mm diameter	No.	8				
	Floor / Ground Clean Out						
18	100 mm diameter	No.	8				
	P - Trap						
19	50 mm diameter	No.	8				
	Floor Drains						
20	50 mm diameter	No.	4				
	Vent Pipes						
	Pipework, Polyvinyl chloride pipe (VU)						
	Incl, Hangers, Supports, Sleeves, Inserts and Accessories						
21	100 mm diameter	m	12				
22	75 mm diameter	m	16				
23	50 mm diameter	m	20				
	Fittings						
	90° Bend						
24	100 mm diameter	No.	4				
25	75 mm diameter	No.	4				
26	50 mm diameter	No.	4				
	90° TEE						
27	100 mm diameter	No.	4				
28	75 mm diameter	No.	4				
29	50 mm diameter	No.	4				
	Reducer						
30	75 x 50 mm diameter	No.	4				
31	100 x 75 mm diameter	No.	8				
	Storm Drain						
	Galvanized carbon steel pipe, ASTM Sch-40						
	Incl, Hangers, Supports, Sleeves, Inserts and Accessories						
32	50 mm diameter	m	24				
	Fittings (GI)						
	90° Bend						
33	50 mm diameter	No.	8				
	45° Bend						
34	50 mm diameter	No.	8				
	Wye						
35	50 mm diameter	No.	8				
	Roof Drains						
36	50 mm diameter	No.	8				
37	Catch Basin	No.	4				

Subcomponent-4-5: (B5) Ancillary Buildings

B53: Guard Houses

Section B53-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
38	Catch Basin Cover	No.	4				
	Total to Section Summary						
	<u>Section 5200 : Ventilation and Air Conditioning</u>						
	<u>Mechanical Ventilation System</u>						
	<u>Equipment</u>						
	<u>Exhaust Fans</u>						
1	Wall Mounted Propeller Fan Q=80 lps	No.	12				
	Total to Section Summary						
	<u>Section 5300 : Fire Protection</u>						
	<u>Portable Fire Extinguisher</u>						
1	ABC Type, 4.5 kg	No.	8				
2	Fire extinguisher bracket W/housing	No.	8				
	Total to Section Summary						

Subcomponent-4-5: (B5) Ancillary Buildings

B53: Guard Houses

Section B53-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section B53-6000 Series: Electrical Works</p> <p style="text-align: center;">Series Summary</p> <p>Section B53-6100: Power Feeder System Guard house-1 Guard house-2</p> <p>Section B53-6200: Lighting And Receptacle Guard house-1 Guard house-2</p> <p>Section B53-6300: Telephone and Data System Guard house-1 Guard house-2</p> <p style="text-align: right;">Total to B53 Guard Houses Summary</p>						
	<p>Guard House - 1 (TYPICAL 4)</p> <p><u>Section B53-6100: Power Feeder System</u></p> <p>1 20AT CB-GH1 No. 4</p> <p style="text-align: right;">Total to Series Summary</p>						
	<p><u>Section B53-6200: Lighting And Receptacle</u></p> <p>1 1 x 18W PLC No. 8</p> <p>2 1 x 18W PLC (Outdoor type) No. 4</p> <p>3 Duplex convenience outlet No. 8</p> <p>4 Two-gang switch No. 8</p> <p>5 3.5 mm² THHN m 280</p> <p>6 15mm dia m 92</p> <p style="text-align: right;">Total to Series Summary</p>						
	<p><u>Section B53-6300: Telephone System</u></p> <p>1 Telephone outlet w/ RJ11 No. 4</p> <p>2 Single Line Telephone No. 6</p> <p>3 4P-CAT5e UTP CABLE (interconnection) m 24</p> <p>4 15mm dia m 20</p> <p style="text-align: right;">Total to Section Summary</p>						
	<p>Guard House - 2 (TYPICAL 4)</p> <p><u>Section B53-6100: Power Feeder System</u></p> <p>1 20AT CB-GH2 No. 4</p> <p style="text-align: right;">Total to Series Summary</p>						
	<p><u>Section B53-6200: Lighting And Receptacle</u></p>						

Subcomponent-4-5: (B5) Ancillary Buildings

B53: Guard Houses

Section B53-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
1	1 x 18W PLC	No.	8				
2	1 x 18W PLC (Outdoor type)	No.	4				
3	Duplex convenience outlet	No.	8				
4	Two-gang switch	No.	8				
5	3.5 mm ² THHN	m	400				
6	15mm dia	m	132				
Total to Series Summary							
<u>Section B53-6300: Telephone System</u>							
1	Telephone outlet w/ RJ11	No.	4				
2	4P-CAT5e UTP CABLE (interconnection)	m	24				
3	15mm dia	m	20				
Total to Series Summary							

Subcomponent-4-5: (B5) Ancillary Buildings

B54: Toll Booths

Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Subcomponent-4-5: (B5) Ancillary Buildings</p> <p>B54: Toll Booths Summary</p> <p>Section B54-4000 Series : Architectural Works</p> <p>Section B54-5000 Series : Mechanical Works</p> <p>Section B54-6000 Series : Electrical Works</p> <p>Total to Subcomponent Summary</p>						

Subcomponent-4-5: (B5) Ancillary Buildings

B54: Toll Booths

Section B54-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B54-4000 Series : Architectural Works						
	Series Summary						
	Section B54-4110 : Earthwork						
	Section B54-4220 : Concrete Works						
	Section B54-4000 : Architectural works						
	Total to B54 Toll Booths Summary						
	Section B54-4110 : Earthwork						
1	Column foundations	m ³	16				
	Filling						
2	Backfilling to excavations	m ³	5				
	Filling/Compaction						
3	Gravel bed; 50mm Thick	m ³	12				
	Total to Series Summary						
	Section B54-4220 : Concrete Works						
	Plain Concrete Class B3 in:						
1	Blinding concrete; 50mm Thick	m ³	1				
	Reinforced Concrete Class B1 in:						
2	Column foundations	m ³	3				
3	Columns	m ³	3				
4	Beams	m ³	1				
5	Ground Beam	m ³	1				
	Formwork						
	Class F1 Formwork in:						
6	Column foundation	m ³	8				
7	Columns	m ³	28				
8	Beams	m ³	7				
9	Ground Beam	m ³	7				
	Reinforcement						
10	Reinforcement bars - Grade40, =276N/mm 10mm - 12mm	kg	312				
11	Reinforcement bars - Grade60, =415N/mm 16mm - 25mm	kg	621				
	Total to Series Summary						
	Section B54-4000 : Architectural works						
1	Toll booth assembly	No.	4				
2	Roof shelter over Toll booth	No.	2				

Subcomponent-4-5: (B5) Ancillary Buildings

B54: Toll Booths

Section B54-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B54-5000 Series: Mechanical Works						
	Series Summary						
	Section B54-5100: Sanitary and Plumbing						
	Section B54-5200 : Ventilation and Air Condition						
	Total to B54 Toll Booths Summary						
	Section 5100 : Sanitary and Plumbing						
	Storm Drain						
	Galvanized carbon steel pipe, ASTM Sch-40						
	Incl, Hangers, Supports, Sleeves, Inserts and Accessories						
1	50 mm diameter	m	16.00				
	Fittings (GI)						
	90° Bend						
2	100 mm diameter	No.	4.00				
	Roof Drains						
3	50 mm diameter	No.	4				
4	Catch Basin	No.	4				
5	Catch Basin Cover	No.	4				
	Total to Section Summary						
	Section 5200 : Ventilation and Air Condition						
	Equipment						
	Fan						
1	Wall Mounted Propeller Fan	No.	4				
	Total to Section Summary						

Subcomponent-4-5: (B5) Ancillary Buildings

B54: Toll Booths

Section B54-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section B54-600 Series: Electrical Works</p> <p style="text-align: center;">Series Summary</p> <p>Section B54-6100: Power Feeder System</p> <p>Section B54-6200: Lighting And Receptacle</p> <p>Section B54-6300 Telephone and Data System</p> <p style="text-align: right;">Total to B54 Toll Booths Summary</p>						
	<p><u>Section B54-6100: Power Feeder System</u></p> <p>1 20AT CB-TB1 No. 1</p> <p>2 20AT CB-TB2 No. 1</p> <p style="text-align: right;">Total to Series Summary</p>						
	<p><u>Section B54-6200: Lighting And Receptacle</u></p> <p>1 1 x 36w Fluorescent fixtures recessed mounted No. 4</p> <p>2 1 x 36w Fluorescent fixtures, diffuser type No. 4</p> <p>3 Duplex convenience outlet No. 4</p> <p>4 One-gang switch No. 4</p> <p>5 3.5 mm² THHN m 250</p> <p>6 15mm dia m 100</p> <p>7 20 mm dia m 15</p> <p style="text-align: right;">Total to Series Summary</p>						
	<p><u>Section B54-6300: Telephone System</u></p> <p>1 Telephone outlet w/ RJ11 No. 4</p> <p>2 Single Line Telephone No. 2</p> <p>3 4P-CAT5e UTP CABLE (interconnection) m 35</p> <p>4 15mm dia m 10</p> <p>5 20 mm dia m 20</p> <p style="text-align: right;">Total to Series Summary</p>						

BILL OF QUANTITIES
OF
SUBCOMPONENT-4-B6:

Utility Buildings

B61: Water Tank & Pump House

B62: Power House

B63: STP Control Room

B64: Material Recovery Facility

Subcomponent-4-6: Utility Buildings
Sucomponent-4-6: (B6) Utility Buildings
Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-6: (B6) Utility Buildings Summary						
	Subcomponent Summary						
	4-61: Water Tank & Pump House						
	4-62: Power House						
	4-63: STP Control Room						
	4-64: Material Recovery Facility						
	Total to Component Summary						

Subcomponent-4-6: Utility Buildings
B61: Water Tank & Pump House Building
Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-6: (B6) Utility Buildings B61: Water Tank & Pump House Summary Section B61-4000 Series : Architectural Works Section B61-5000 Series : Mechanical Works Section B61-6000 Series: Electrical Works Total to Subcomponent Summary						

Subcomponent-4-6: Utility Buildings
B61: Water Tank & Pump House Building
Section B61-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B61-4000 Series : Architectural Works						
	Series Summary						
	Section B61-4110 : Earthwork						
	Section B61-4120 : Termite Control						
	Section B61-4220 : Concrete Works						
	Section B61-4310 : Blockworks						
	Section B61-4320 : Waterproofing						
	Section B61-4340 : Windows/Doors						
	Section B61-4350 : Metalworks						
	Section B61-4370 : Finishes						
	Section B61-4380 : Miscellaneous Fittings and						
	Total to B61 Water Tank & Pump House Summary						
	Section B61-4110 : Earthwork						
	Normal Excavation						
1	Column foundation and pits	m ³	100				
2	Ground beams	m ³	46				
	Excavation in Rock						
3	Column foundation and pits	m ³	25				
4	Ground beams	m ³	11				
	Filling						
5	Backfilling to foundations	m ³	104				
	Filling/Compaction						
7	Gravel bed; 50mm thick	m ²	30				
8	Gravel bed; 100mm thick	m ²	573				
9	Gravel bed; 50mm thick to external sidewalk (29)MD	m ²	312				
10	Polyethylene waterproof membrane	m ²	480				
	Total to Series Summary						
	Section B61-4120 : Termite Control						
1	Soil treatment	m ²	1,299				
	Total to Series Summary						
	Section B61-4220: Concrete Works						
	In-situ Concrete						

Subcomponent-4-6: Utility Buildings
 B61: Water Tank & Pump House Building
 Section B61-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
1	Plain Concrete Class B3 in : Blinding layer; 50mm thick	m ³	30				
2	Blinding layer; 50 mm thick to external sidewalk (29/MD)	m ³	16				
3	Reinforced Concrete; Class B1 in: Column foundations	m ³	30				
4	Ground beams	m ³	34				
5	Columns	m ³	36				
6	Beams	m ³	59				
7	Suspended slabs	m ³	48				
8	Parapet	m ³	34				
9	Reinforced Concrete; Class B2 in: Ground floor slab	m ³	72				
10	Base slab to external sidewalk (29/MD)	m ³	31				
	Formwork						
11	Class F1 Formwork in: Column foundations	m ²	63				
12	Ground beams	m ²	279				
13	Columns	m ²	232				
14	Beams	m ²	524				
15	Ground slab	m ²	14				
16	Parapet	m ²	351				
17	Class F3 Formwork in: Suspended slabs	m ²	480				
	Reinforcement						
18	Reinforcement bars - (grade 40, = 276 N/mm²) 10 mm ~ 12mm	kg	14,675				
19	Reinforcement bars - (grade 60, = 415 N/mm²) 16 mm ~ 25mm	kg	24,471				
	Total to Series Summary						
	Section B61-4310: Blockwork						
1	Hollow Concrete Block Wall; 150mm thick	m ²	183				
	Reinforced Concrete Class B2 in Lintels and Stiffeners						
2	Lintel beam above opening; 150 x 200mm including formwork and reinforcement	m	2				

Subcomponent-4-6: Utility Buildings
B61: Water Tank & Pump House Building
Section B61-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
3	Stiffener beam; 150 x 300mm including formwork and reinforcement	m	44				
4	Stiffener column; 150 x 300mm including formwork and reinforcement	m	18				
Total to Series Summary							
Section B61-4320: Waterproofing							
<u>Waterproofing Membrane</u>							
<u>Built-up Bitumen Felt Water Proofing System; WP-1</u>							
1	Waterproofing System with insulation applied to surface (10/RD)	m ²	498				
2	Waterproofing System applied to parapet wall (10/RD)	m ²	83				
3	50mm Thick protection concrete with 4mm diameter at 100mm welded wire mesh in steel trowel finish (10/RD)	m ²	498				
4	25mm Wide contraction gap w/ sealant in protection concrete (10/RD)	m	310				
5	350mm Wide steel trowel finish roof ditch with metal lath	m	60				
Total to Series Summary							
Section B61-4340: Windows/Doors							
<u>STEEL DOOR SETS ; flush type as shown on door & window schedule drawing : including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling</u>							
1	1/SD 1800 x 2100 mm	No.	3				
<u>ALUMINIUM LOUVERS : fixed type ; effective rate @ 40%; including frames, frame set and fixing lug, mortar bedding/filling and sealants and complete with insect screens and sub-frames</u>							
3	1/AL 1200 x 800 mm	No.	4				
4	3/AL 2100 x 800 mm	No.	2				
Total to Series Summary							
Section B61-4350: Metalworks							
<u>Chain link Panels</u>							
1	Galvanised chain link wire on galvanized steel framing to opening size 6000 W x 2730 mm H including 2 access doors as shown in the Drawing (1/CD)	no.	6				
2	Galvanised chain link wire on galvanized steel framing to opening size 8000 W x 2730 mm H	no.	2				
<u>Miscellaneous Metal Works</u>							
3	Roof drain outlet 100 mm diameter (10/RD)	No.	8				
Total to Series Summary							

Subcomponent-4-6: Utility Buildings
B61: Water Tank & Pump House Building
Section B61-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section B61-4370: Finishes</u>							
<u>In-situ Finishes</u>							
<u>Internal Finishes</u>							
1	Cement render to floor; 50mm thick; to receive damp proof paint P-6 (F8 & F11)	m ²	401				
2	Cement render to walls; 20mm thick to receive paint (W3 & W4)	m ²	653				
<u>External Finishes</u>							
3	Cement render to walls; 20mm thick, to receive paint	m ²	483				
4	Cement render to concrete trellis ; 20mm thick to receive paint	m ²	73				
5	Cement render to sidewalk 30mm thick (32/MD)	m ²	312				
<u>Painting/Clear Finishing</u>							
<u>Synthetic resin emulsion paint (P-1) to:</u>							
6	Cement rendered wall (W-3)	m ²	300				
<u>Synthetic resin mixed paint type B (P-3) to:</u>							
7	Steel doors	m ²	23				
<u>Synthetic resin emulsion multi-layer coating (P-4) to:</u>							
8	Cement rendered wall (W-4)	m ²	483				
9	Cement rendered concrete trellis	m ²	73				
10	formed face concrete to water tank room ceiling	m ²	470				
<u>Epoxy resin floor paint (P-6) to:</u>							
11	Cement rendered floors (F-8)	m ²	401				
Total to Series Summary							

Subcomponent-4-6: Utility Buildings
 B61: Water Tank & Pump House Building
 Section B61-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section B61-5000 Series: Mechanical</p> <p>Series Summary</p> <p>Section B61-5100 : Sanitary and Plumbing</p> <p>Section B61-5200 : Ventilation and Air Condition</p> <p>Section B61-5300 : Fire Protection</p> <p>Total to B61 Water Tank & Pump House Summary</p>						
	<p>Section B61-5100 : Sanitary and Plumbing</p> <p>Sewer Piping System</p> <p>Pipeworks, Polyvinyl chloride pipe (Hight Dencity VP) Incl, Fittings,Hangers, Supports, Sleeves, Inserts,Excavation, Back Filling,Sand Bedding and Accessories.</p> <p>1 75 mm diameter m 22</p> <p>Fittings</p> <p>1/8 bend</p> <p>2 75 mm diameter No. 1</p> <p>3 75 mm diameter for Wye No. 1</p> <p>Floor / Ground Clean Out</p> <p>4 75 mm diameter No. 1</p> <p>Floor Drains</p> <p>5 50 mm diameter No. 4</p> <p>6 Oil Interceptor (for mechanical room) No. 1</p> <p>Storm Drain</p> <p>Above Ground</p> <p>Galvanized carbon steel pipe, ASTM Sch-40 Incl, Hangers, Supports,Sleeves, Inserts and Accessories.</p> <p>7 100 mm diameter m 44</p> <p>Under Ground</p> <p>Polyvinyl chloride pipe (VP) Incl, Hangers, Supports,Sleeves, Inserts,Excavation, Back filling, Sand Bedding and Accessories.</p> <p>8 150 mm diameter m 66</p> <p>9 100 mm diameter m 35</p> <p>Fittings (GI)</p> <p>90° Bend</p> <p>10 100 mm diameter No. 24</p> <p>45° Bend</p> <p>11 100 mm diameter No. 16</p> <p>Roof Drains</p> <p>12 100 mm diameter No. 8</p> <p>13 Catch Basin No. 8</p> <p>14 Catch Basin Cover No. 8</p>						

Subcomponent-4-6: Utility Buildings
 B61: Water Tank & Pump House Building
 Section B61-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Total to Section Summary							
<u>Section B61-5200 : Ventilation and Air Conditioning</u>							
<u>Mechanical Ventilation System</u>							
Equipment							
<u>Exhaust Fans</u> Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.							
1	In-Line Axial Fan c/w Direct Driven Motor, Q= 820 lps	No.	1				
2	In-Line Axial Fan c/w Direct Driven Motor, Q= 750 lps	No.	1				
<u>Fresh Air Fans</u> Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.							
3	In-Line Axial Fan c/w Direct Driven Motor, Q= 820 lps	No.	1				
4	In-Line Axial Fan c/w Direct Driven Motor, Q= 750 lps	No.	1				
<u>Duct Works</u>							
<u>G.I sheets</u> Incl, Hangers, Supports, Sleeves, Inserts and Accessories.							
5	0.6 mm (Ga. # 24)	m ²	24				
6	0.8 mm (Ga. # 22)	m ²	36				
<u>Exhaust Air Grilles (EA)</u>							
7	1500 x 600 mm	No.	1				
8	1200 x 600 mm	No.	1				
<u>Exhaust Air Louvers (EA)</u>							
9	2000 x 600 mm	No.	2				
10	1800 x 600 mm	No.	2				
<u>Fresh Air Grilles (FA)</u>							
11	1300 x 600 mm	No.	1				
12	1100 x 600 mm	No.	1				
<u>Fresh Air Louvers (FA)</u>							
13	1800 x 600 mm	No.	1				
14	1500 x 600 mm	No.	1				
Total to Section Summary							
<u>Section B61-5300 : Fire Protection</u>							
1	Fire hose cabinet c/w valve, 40mm diameter x 30m fire hose w/ fog nozzle, hose rack and 4.5kg ABC type fire extinguisher	No.	1				
<u>Portable Fire Extinguisher</u>							

Subcomponent-4-6: Utility Buildings
B61: Water Tank & Pump House Building
Section B61-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
2	ABC Type, 4.5 kg	No.	1				
3	CO ₂ Type, 23.0 Kg	No.	1				
4	Fire extinguisher bracket W/housing	No.	1				
	Total to Section Summary						

Subcomponent-4-6: Utility Buildings
 B61: Water Tank & Pump House Building
 Section B61-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-6: (B61) Electrical Works Series Summary Section B61-6100: Power Feeder System Section B61-6200 : Lighting And Receptacle Section B61-6300 : Telephone and Data System Section B61-6800 : Fire Detection And Alarm Section B61-6900 : Lightning Protection and Grounding System Total to Section Summary						
	Section B61-6100: Power Feeder System 1 LPPNE No. 1 2 500mm (W) cable tray m 45 Total to Series Summary						
	Section B61-6200: Lighting And Receptacle Lighting Fixtures 1 1 x 18W PLC No. 6 2 1 x 18w CFL, wall mounted No. 10 3 2 x 36w Fluorescent fixture, industrial type No. 10 4 1 x 36W Fluorescent Fixture (wall mounted) No. 12 Wiring Devices & Receptacle 5 Duplex Convenience Outlet No. 4 6 Duplex Weatherproof outlet No. 1 7 One - gang switch No. 3 8 Two - gang switch No. 2 Wires & Cables 9 3.5 mm² THHN m 1,800 Conduits 10 15 mm dia m 600 Total to Series Summary						

Subcomponent-4-6: Utility Buildings
 B61: Water Tank & Pump House Building
 Section B61-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section B61-6300: Telephone and Data System</u>							
<u>Equipment & Devices</u>							
1	Telephone outlet w/ RJ11	No.	1				
2	Single Line Telephone	No.	1				
3	Terminal Board (TB-WPH)	No.	1				
<u>Wires & Cables</u>							
4	4P-CAT5e UTP CABLE (interconnection)	m	25				
<u>Conduits</u>							
5	15 mm dia	m	20				
Total to Series Summary							
<u>Section B61-6800: Fire Detection And Alarm</u>							
<u>Equipment & Devices</u>							
1	Smoke detector	No.	4				
2	Fire alarm bell	No.	1				
3	Manual Fire Alarm Station	No.	1				
4	Remote Annunciator Panel	No	1				
5	Fireman's Telephone Jack	No.	1				
6	Fire Alarm Terminal Cabinet (FATC-WPH)	No	1				
<u>Wires & Cables</u>							
7	1.25 mm ² TF Wires (interconnection)	m	6				
<u>Conduits</u>							
8	15 mm dia	m	41				
Total to Series Summary							
<u>Section B61-6900: Grounding System</u>							
1	Grounding System	Sum	1				
Total to Series Summary							

Subcomponent-4-6: Utility Buildings

B62: Power House

Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-6: (B6) UtilityBuildings						
	B62: Power House Summary						
	Section B62-4000 : Architectural Works						
	Section B62-5000 : Mechanical Works						
	Section B62-6000 : Electrical Works						
	Total to Subcomponent Summary						

Subcomponent-4-6: Utility Buildings
 B62: Power House
 Section B62-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section B62-4000 series : Architectural Works</p> <p>Series Summary</p> <p>Section B62-4110 : Earthwork</p> <p>Section B62-4120 : Termite Control</p> <p>Section B62-4220 : Concrete Works</p> <p>Section B62-4310 : Blockworks</p> <p>Section B62-4320 : Waterproofing</p> <p>Section B62-4340 : Windows/Doors</p> <p>Section B62-4350 : Metalworks</p> <p>Section B62-4360 : Woodwork and Partitions</p> <p>Section B62-4370 : Finishes</p> <p>Section B62-4380 : Miscellaneous Fittings & Furniture</p> <p style="text-align: right;">Total to B62 Power House Summary</p>						
	<p>Section B62-4110 : Earthwork</p> <p>Normal Excavation</p> <p>1 Column foundations and pits m³ 230</p> <p>2 Ground beams m³ 77</p> <p>Excavation in Rock</p> <p>3 Column foundation and pits m³ 58</p> <p>4 Ground beams m³ 19</p> <p>Filling</p> <p>5 Backfilling to foundations m³ 258</p> <p>Filling/Compaction</p> <p>7 Gravel bed; 50mm thick m² 396</p> <p>8 Gravel bed; 100mm thick m² 982</p> <p>9 Gravel bed; 50mm thick to external sidewalk (29/MD) m² 396</p> <p>10 Polyethylene waterproof membrane m² 864</p> <p style="text-align: right;">Total to Series Summary</p>						
	<p>Section B62-4120 : Termite Control</p> <p>1 Soil treatment m² 1,919</p> <p style="text-align: right;">Total to Series Summary</p>						
	<p>Section B62-4220: Concrete Works</p> <p>In-situ Concrete</p>						

Subcomponent-4-6: Utility Buildings
 B62: Power House
 Section B62-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Reinforced Concrete; Class B3 in:						
1	Blinding layer; 50mm thick	m ³	55				
2	Blinding layer; 50 mm thick to external sidewalk (29/MD)	m ³	20				
	Reinforced Concrete; Class B1 in:						
3	Column foundations	m ³	63				
4	Ground beams	m ³	56				
5	Columns	m ³	77				
6	Beams	m ³	139				
7	Suspended slabs	m ³	58				
8	parapet	m ³	16				
	Reinforced Concrete; Class B2 in:						
9	Ground floor slab	m ³	130				
10	Base slab to external sidewalk (29/MD)	m ³	40				
	Formwork						
	Class F1 Formwork in:						
11	Column foundations	m ²	108				
12	Ground beams	m ²	468				
13	Columns	m ²	530				
14	Beams	m ²	1,148				
15	Suspended slabs	m ²	275				
16	Parapet	m ²	213				
	Class F3 Formwork in :						
17	Suspended slabs	m ²	301				
	Reinforcement						
	Reinforcement bars - (grade 40, = 276 N/mm²)						
18	10 mm ~ 12mm	kg	35,076				
	Reinforcement bars - (grade 60, = 415 N/mm²)						
19	16 mm ~ 25mm	kg	43,521				
Total to Series Summary							
	Section B62-4310: Blockwork						
	Hollow Concrete Block						
1	Wall; 150mm thick	m ²	1,269				
2	Wall (100 mm thk)	m ²	2				
	Reinforced Concrete Class B2 in Lintels and Stiffeners						
3	Lintel beam above opening; 150 x 200mm	m	112				

Subcomponent-4-6: Utility Buildings

B62: Power House

Section B62-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	including formwork and reinforcement						
4	Stiffener beam; 150 x 300mm including formwork and reinforcement	m	134				
5	Stiffener column; 150 x 300mm including formwork and reinforcement	m	209				
Total to Series Summary							
<u>Section B62-4320: Waterproofing</u>							
<u>Waterproofing Membrane</u>							
<u>Built-up Bitumen Felt Water Proofing System; WP-1</u>							
1	Waterproofing System with insulation applied to surface (1/RD)	m ²	900				
2	Waterproofing System applied to parapet wall (3/RD)	m ²	110				
3	50mm Thick protection concrete with 4mm diameter at 100mm welded wire mesh in steel trowel finish (3/RD)	m ²	900				
4	25mm Wide contraction gap w/ sealant in protection concrete (3/RD)	m	447				
5	350mm Wide steel trowel finish roof ditch with metal lath	m	72				
<u>Underground External Water Proofing WP-5</u>							
6	Trench wall and floor	m ²	182				
Total to Series Summary							
<u>Section B62-4340: Windows/Doors</u>							
<u>WOOD DOOR SETS: flush type ; as shown on door & window schedule drawing; including all ironmongery, louvers, openings, wood frames and beads and all fixing lugs, mortar bedding/filling and sealants</u>							
1	1/WD 700 x 2100 mm w/ louver	No.	1				
2	2/WD 900 x 2100 mm	No.	3				
3	3/WD 900 x 2100 mm w/ louver	No.	1				
4	4/WD 900 x 2100 mm w/ louver	No.	1				
5	5/WD 900 x 2100 mm w/ louver	No.	1				
6	6/WD 600 x 1800 mm	No.	2				
<u>STEEL DOOR SETS : flush type as shown on door & window schedule drawing : including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling</u>							
7	1/SD 900 x 2100 mm	No.	2				
8	2/SD 1400 x 2100 mm	No.	1				

Subcomponent-4-6: Utility Buildings
 B62: Power House
 Section B62-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
9	3/SD 1400 x 2100 mm	No.	1				
10	4/SD 1400 x 2100 mm w/ louver	No.	1				
11	5/SD 1800 x 2100 mm	No.	1				
	<u>ALUMINIUM DOORS; as shown on Drawings, including glazing, beads, gaskets, ironmongery, thresholds, frame set and fixing lug, mortar bedding/filling and sealants</u>						
12	1/AD 1800 X 2625 (2100) mm w/ louver	No.	1				
13	2/AD 900 x 2100 mm	No.	1				
	<u>ALUMINIUM WINDOWS WITH INSECT SCREENS; as shown on Drawings, including glazing, beads, gaskets, ironmongery, thresholds, frame set and fixing lug, mortar bedding/filling and sealants</u>						
14	1/AW 1900 X 1175 mm w/ louver	No.	10				
15	2/AW 2000 x 1200 mm	No.	1				
16	3/AW 1900 x 535 mm w/ louver	No.	8				
17	1/AL 950 x 400 mm	No.	1				
18	2/AL 2000 x 1200 mm	No.	1				
19	3/AL 1530 x 1600 mm	No.	3				
20	4/AL 5250 x 1735 mm	No.	1				
21	5/AL 500 x 300 mm	No.	1				
22	6/AL 1900 x 850 mm	No.	1				
23	7/AL 1900 x 600 mm	No.	2				
24	8/AL 1910 x 500 mm	No.	8				
	Total to Series Summary						
	<u>Section B62-4350: Metalworks</u>						
	Miscellaneous Metal Works						
1	Roof drain outlet 100 mm diameter (3/RD)	No.	6				
2	Aluminum wall trim at ceiling (5/MD); 20 x 15 x 10 x 20mm, double L section	m	87				
3	Stainless steel kitchen counter w/ integrated sink Over all size 600 x 5260 mm L-Shape type,	No.	1				
4	Aluminum blind box overall size 120mm wide x 100mm high 100 mm high fix to structure with hanger bolts (5A/MD)	m	33				

Subcomponent-4-6: Utility Buildings

B62: Power House

Section B62-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
5	Trolley Hoist and Beam Rail Trolley hoist/beam rail assembly, 12,000mm long, capacity =1.5 tons with and including all necessary brackets, bolts, anchors, plates, and angles (18/MD)	No.	3				
Total to Series Summary							
Section B62-4360: Woodworks and Partition							
Cubicles (8/MD)							
1	One-unit cubicle	No.	1				
2	Two-unit cubicle	No.	1				
3	Urinal partition	No.	2				
Kitchen counter and cabinets as shown on the Drawings, 19mm thick MDF panel w/ high pressured laminate, including concrete slab, all necessary framing, fixing, fittings and ironmongery							
4	Floor mounted ; 5260 x 600 x 1000mm high (L-shape)	No.	1				
5	Wall mounted; 5260 x 300 x 815mm high (L-shape)	No.	1				
Total to Series Summary							
Section B62-4370: Finishers							
In-situ Finishes							
Internal Finishes							
1	Cement render to floor; 50mm thick; to receive damp proof paint P-6 (F8)	m ²	639				
2	Cement render to floor; 38mm thick; to receive vinyl tiles (F6)	m ²	127				
3	Cement render to floor; 42mm thick; to receive ceramic tiles (F4)	m ²	86				
4	Cement render to walls; 20mm thick; to receive paint (W3 and W4)	m ²	995				
5	Cement render to walls; 22mm thick; to receive ceramic tiles (W2)	m ²	142				
6	Cement render to wall; 25mm thick, to receive glasswool board insulation (W8)	m ²	546				
External Finishes							
7	Cement render to walls; 20mm thick; to receive paint	m ²	558				
8	Cement render to concrete trellis; 20mm thick to receive paint	m ²	110				
9	Cement render to sidewalk 30mm thick (29/MD)	m ²	436				
Rigid Tile/Slab/Block							
Ceramic Tile Covering							
10	Ceramic tiles to floors; 300 x 300 x 8mm thick (F4)	m ²	86				

Subcomponent-4-6: Utility Buildings

B62: Power House

Section B62-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
11	Ceramic tiles to wall; 300 x 300 x 8mm thick (W2)	m ²	142				
12	Ceramic tiles to toilet coping; 300 x 200mm x 8 mm thick including cement render backing; 30 mm thick (7/MD)	m	2				
	<u>Flexible Tile/Sheet</u>						
13	Vinyl tiles to floors; 300 x 300 x 2mm thick (F6A)	m ²	101				
14	Anti-static vinyl tiles to raised floors; 300 x 200 x 2mm thick	m ²	26				
15	Polyvinyl soft tile to skirting 100mm high x 2 mm thick (S4)	m	100				
16	Precovered glass wool board; to walls (W8)	m2	546				
17	Precovered glass wool board; to ceilings (W-5)	m2	252				
	<u>Suspended Ceilings and Bulkheads; including supports and suspension systems:</u>						
18	600 x 600 x 15mm Thick acoustic rockwool ceiling system (C-1)	m ²	250				
19	Suspended Double Ceiling: t=12 on t=9 sheeting gypsums with P-1 (C6)	m ²	52				
	<u>Painting/Clear Finishing</u>						
	<u>Synthetic resin emulsion paint (P-1) to:</u>						
20	Cement rendered wall (W-3)	m ²	939				
	<u>Synthetic resin mixed paint type A (P-2) to:</u>						
21	Wood doors	m ²	28				
	<u>Synthetic resin mixed paint type B (P-3) to:</u>						
22	Steel doors	m ²	33				
	<u>Synthetic resin emulsion multi-layer coating (P-4) to:</u>						
23	Cement rendered external walls	m ²	614				
24	Cement rendered concrete trellis	m ²	110				
	<u>Epoxy resin floor paint (P-6) to:</u>						
25	Cement rendered floors (F-8)	m ²	639				
	Total to Series Summary						
	Section B62-4380: Miscellaneous Fittings and Furniture						
	Miscellaneous Item						
1	Clear mirror	m ²	4				
	Lavatory Counter Top, in Granite polish finish, 20 mm thick; w/opening for lavatory basins including supporting frame and all necessary fixations (7/MD)						
2	2897 x 600 mm Deep	No.	1				
3	1402 x 600 mm Deep	No.	1				
4	Venetian blinds	m ²	48				

Subcomponent-4-6: Utility Buildings
 B62: Power House
 Section B62-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Total to Series Summary						

Subcomponent-4-6: Utility Buildings

B62: Power House

Section B62-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Section B62-5000 Series: Mechanical Works							
Series Summary							
Section B62-5100 : Sanitary and Plumbing							
Section B62-5200 : Ventilation and Air Condition							
Section B62-5300 : Fire Protection							
Total to B62 Power House Summary							
Section B62-5100 : Sanitary and Plumbing							
Sanitary Fixtures							
1	WC-3 Water closet (FV)	No.	3				
2	UR-3 Urinal	No.	3				
3	LAV-3 Under counter type lavatory	No.	4				
4	LAV-4 Wall Hang	No.	1				
5	SS-2 Service sink (Slop Sink)	No.	1				
6	SHW-1 Shower set	No.	2				
7	Faucet for kitchen sink	No.	1				
8	PH-2 Toilet paper holder (Duble)	No.	3				
9	Sop Dispenser	No.	2				
Kitchen Equipment							
10	Electric Cooking Stove	No.	1				
Water Distribution System							
Piping Works							
Pipeworks, Polyvinyl chloride pipe (High Density VP)							
Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories.							
11	20 mm diameter	m	25				
12	25 mm diameter	m	14				
13	32 mm diameter	m	40				
14	50 mm diameter	m	8				
Gate Valve JIS 10 Kg/cm2							
15	40 mm diameter	No.	7				
16	50 mm diameter	No.	4				
17	Water Hammer Arrester	No.	6				
Hot Water Distribution Equipment							

Subcomponent-4-6: Utility Buildings

B62: Power House

Section B62-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
18	EWB - 1 Electric Water Heater - Single point (Instantaneous)	No.	2				
19	EWB - 2 Electric Water Heater - Multi point (Instantaneous)	No.	1				
	Hot Water Piping Works Incl. Fittings, Hangers, Supports, Sleeves, Inserts and Accessories.						
20	Copper Pipe Type L; 20 mm diameter	m	12				
	Gate Valve JIS 10 Kg/cm²						
21	20 mm diameter	No.	3				
	Sewer Piping System						
	Pipeworks, Polyvinyl chloride pipe (High Density VP) Incl. Fittings, Hangers, Supports, Sleeves, Inserts, Excavation, Back Filling, Sand Bedding and Accessories.						
22	100 mm diameter	m	50				
23	75 mm diameter	m	5				
24	50 mm diameter	m	18				
	Fittings						
	Wye & 1/8 bend combination						
25	100 mm diameter	No.	6				
26	75 mm diameter	No.	1				
27	50 mm diameter	No.	19				
	Wye						
28	100 mm diameter	No.	5				
29	100 x 75mm diameter	No.	1				
30	100 x 50mm diameter	No.	10				
	1/4 Bend						
31	100 mm diameter	No.	4				
32	50 mm diameter	No.	6				
	Floor / Ground Clean Out						
33	100 mm diameter	No.	12				
	P - Trap						
34	50 mm diameter	No.	9				
	Floor Drains						
35	50 mm diameter	No.	8				
	Shower Drains						
36	50 mm diameter	No.	7				
37	Grease trap @ kitchen	No.	1				
38	Oil Interceptor (for genset room)	No.	2				

Subcomponent-4-6: Utility Buildings

B62: Power House

Section B62-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<u>Vent Pipes</u>						
	Pipeworks, Polyvinyl chloride pipe (VU) Incl, Hangers, Supports, Sleeves, Inserts and Accessories.						
39	100 mm diameter	m	173				
40	75 mm diameter	m	39				
41	50 mm diameter	m	144				
	Fittings						
	90° Bend						
42	100 mm diameter	No.	1				
43	75 mm diameter	No.	1				
44	50 mm diameter	No.	17				
	90° TEE						
45	100 mm diameter	No.	10				
46	75 mm diameter	No.	1				
47	50 mm diameter	No.	14				
	Reducer						
48	75 x 50 mm diameter	No.	1				
49	100 x 75 mm diameter	No.	1				
	<u>Storm Drain</u>						
	Above Ground						
	Galvanized carbon steel pipe, ASTM Sch-40 Incl, Hangers, Supports, Sleeves, Inserts and Accessories.						
50	100 mm diameter	m	53				
	Under Ground						
	Pipeworks, Polyvinyl chloride pipe (VP) Incl, Fittings,Hangers, Supports, Sleeves, Inserts,Excavation, Back Filling,Sand Bedding and Accessories.						
51	100 mm diameter	m	120				
	Fittings (GI)						
	90° Bend						
52	100 mm diameter	No.	4				
53	75 mm diameter	No.	4				
	45° Bend						
54	100 mm diameter	No.	9				
55	75 mm diameter	No.	9				
	Wye						
56	100 mm diameter	No.	2				
57	75 mm diameter	No.	5				
	Roof Drains						
58	100 mm diameter	No.	4				

Subcomponent-4-6: Utility Buildings

B62: Power House

Section B62-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
59	75 mm diameter	No.	8				
60	Catch Basin	No.	9				
61	Catch Basin Cover	No.	9				
Total to Section Summary							
<u>Section B62-5200 : Ventilation and Air Conditioning</u>							
<u>Air Conditioning System</u>							
<u>Equipment</u>							
<u>Air Cooled Packaged Air Conditioner</u>							
Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.							
1	Ceiling Suspended Split AC Unit Cooling Capacity 8.78 kw	No.	1				
2	Wall Mounted AC Unit Cooling Capacity 7 kw	No.	1				
3	Ceiling Cassette Split AC Unit Cooling Capacity 7 kw	No.	1				
4	Ceiling Cassette Split AC Unit Cooling Capacity 5.27 kw	No.	1				
5	Window Type AC Unit Cooling Capacity 6.66 KW	No.	3				
<u>Refrigerant pipes, copper pipes type "L"</u>							
Incl, Fittings,Hangers, Supports, Sleeves, Inserts and Accessories.							
6	6.35 mm diameter	m	16				
7	9.53 mm diameter	m	48				
8	15.88 mm diameter	m	16				
9	19.05 mm diameter	m	48				
<u>Thermal Insulation</u>							
<u>Closed cell elastomeric thermal insulation</u>							
10	6.35 mm diameter (30 mm thick)	m	16				
11	9.53 mm diameter (30 mm thick)	m	48				
12	15.88 mm diameter (30 mm thick)	m	16				
13	19.05 mm diameter (30 mm thick)	m	48				
<u>Pipe Fittings</u>							
<u>Filter Drier</u>							
14	6.35 mm diameter	No.	1				
15	9.53 mm diameter	No.	4				
<u>Moisture Indicator</u>							
16	6.35 mm diameter	No.	1				
17	9.53 mm diameter	No.	4				

Subcomponent-4-6: Utility Buildings

B62: Power House

Section B62-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<u>Condensate Drain Piping; PVC (VP)Pipes</u> Incl, Fittings,Hangers, Supports, Sleeves, Inserts and Accessories.						
18	25 mm diameter (PVC-VP)	m	150				
19	50 mm diameter (PVC-VP)	m	24				
	<u>Condensate Drain Insulation</u> Thermal Insulation Closed cell elastomeric thermai insulation						
20	50 mm diameter (20 mm thick)	m	24				
21	25 mm diameter (20 mm thick)	m	150				
	<u>Aluminum Cladding</u>						
22	Aluminum Sheet (Ga. # 26)	m ²	72				
	<u>Mechanical Ventilation System</u>						
	Equipment						
	<u>Exhaust Fans</u> Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.						
23	Centrifugal In-Line Duct Fan c/w Direct Driven Motor, Q= 133 lps	No.	1				
24	Centrifugal In-Line Duct Fan c/w Direct Driven Motor, Q= 375 lps	No.	1				
25	In-Line Axial Fan c/w Belt Driven Motor, Q= 69 lps	No.	1				
26	Propeller Wall Mounted Fan, c/w Direct Driven Motor and Shutter, Q= 356 lps	No.	1				
27	Centrifugal In-Line Duct Fan c/w Direct Driven Motor, Q= 1125 lps	No.	1				
28	In-Line Axial Fan c/w Belt Driven Motor, Q= 2837 lps	No.	1				
29	In-Line Axial Fan c/w Belt Driven Motor, Q= 3665 lps	No.	3				
30	In-Line Axial Fan c/w Belt Driven Motor, Q= 139 lps	No.	1				
	<u>Fresh Air Fans</u> Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.						
31	In-Line Axial Fan c/w Belt Driven Motor, Q= 2123 lps	No.	1				
	<u>Duct Works</u>						
	<u>G.I sheets</u> Incl, Hangers, Supports, Sleeves, Inserts and Accessories.						
32	0.6 mm (Ga. # 24)	m ²	60				
33	0.8 mm (Ga. # 22)	m ²	90				

Subcomponent-4-6: Utility Buildings

B62: Power House

Section B62-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<u>Exhaust Air Grilles (EA)</u>						
34	300 x 300 mm	No.	11				
35	400 x 400 mm	No.	3				
36	800 x 500 mm	No.	2				
37	1000 x 500 mm	No.	4				
	<u>Exhaust Air Louvers (EA)</u>						
38	400 x 300 mm	No.	2				
39	500 x 400 mm	No.	1				
40	1000 x 500 mm	No.	1				
41	1200 x 800 mm	No.	3				
	<u>Fresh Air Grilles (FA)</u>						
42	800 x 400 mm	No.	4				
	<u>Fresh Air Louvers (FA)</u>						
43	900 x 500 mm	No.	1				
	<u>Volume Damper</u>						
44	150 x 150 mm	No.	16				
45	200 x 200 mm	No.	8				
	<u>Backdraft Damper</u>						
46	200 x 200 mm	No.	2				
47	300 x 200 mm	No.	1				
	Total to Section Summary						
	<u>Section B62-5300 : Fire Protection</u>						
1	Fire hose cabinet c/w valve, 40mm diameter x 30m fire hose w/ fog nozzle, hose rack and 4.5kg ABC type fire extinguisher	No.	1				
	<u>Portable Fire Extinguisher</u>						
2	ABC Type, 4.5 kg	No.	2				
3	CO ₂ Type, 9.0 Kg	No.	2				
4	CO ₂ Type, 23.0 Kg	No.	2				
5	Fire extinguisher bracket W/housing	No.	4				
	Total to Section Summary						

Subcomponent-4-6: Utility Buildings

B62: Power House

Section B62-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Subcomponent-4-6: (B62) Electrical Works</p> <p style="text-align: center;">Series Summary</p> <p>Section B62-6100: Power Feeder System</p> <p>Section B62-6200 : Lighting And Receptacle</p> <p>Section B62-6300 : Telephone and Data System</p> <p>Section B62-6800 : Fire Detection And Alarm</p> <p>Section B62-6900 : Lightning Protection and Grounding System</p> <p style="text-align: center;">Total to Section Summary</p>						
	<u>Section B62-6100: Power Feeder System</u>						
1	10 KVA UPS, 1 Phase, 230 V	No.	1				
	<u>Panel boards (Normal Power)</u>						
2	VACN	No.	1				
3	LPPN	No.	1				
4	LPN	No.	1				
5	PPGA	No.	1				
6	RCPN	No.	1				
	<u>Panelboards (Normal and Emergency Power)</u>						
7	VACNE	No.	1				
8	LPPNE	No.	1				
9	RCPNE	No.	1				
10	UPSE	No.	1				
	<u>Wires & Cables</u>						
11	1C-95mm ² XLPE	m	1,150				
12	1C-10mm ² XLPE	m	75				
13	1C-6mm ² XLPE	m	75				
14	14mm ² TW	m	330				
15	8mm ² TW	m	10				
16	5.5mm ² TW	m	20				
17	3.5mm ² TW	m	15				
	Total to Series Summary						

Subcomponent-4-6: Utility Buildings

B62: Power House

Section B62-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section B62-6200: Lighting And Receptacle System</u>							
<u>Lighting Fixtures</u>							
1	4 x 18W Fluorescent fixture w/ metal louver	No.	34				
2	2 x 36w Fluorescent fixture, industrial type	No.	48				
3	1 x 18w PLC downlight	No.	39				
4	<u>Wiring Devices & Receptacle</u>						
5	Duplex convenience outlet	No.	23				
6	Special Purpose Outlet (ACU)	No.	3				
7	Hand dryer outlet	No.	2				
8	One - gang switch	No.	7				
9	Two - gang switch	No.	10				
10	30A, 3P, 230V, ECB	No.	4				
11	40A, 3P, 230V, ECB	No.	1				
12	30A, 2P, 230V, ECB	No.	3				
13	40A, 2P, 230V, ECB	No.	1				
<u>Wires & Cables</u>							
14	3.5 mm ² THHN	m	3,200				
15	5.5 mm ² THHN	m	700				
16	8.0 mm ² THHN	m	80				
17	3.5mm ² Fire Rated Cable	m	1,000				
<u>Conduits</u>							
18	15 mm dia	m	1,200				
19	20 mm dia	m	40				
20	20 mm Diameter flexible metallic conduit	m	100				
Total to Series Summary							
<u>Section B62-6300: Telephone and Data System</u>							
<u>Equipment / Devices</u>							
1	Telephone outlet w/ RJ11	No.	4				
2	Single Line Telephone	No.	2				
3	Computer outlet w/ RJ45	No.	4				

Subcomponent-4-6: Utility Buildings

B62: Power House

Section B62-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
4	Terminal Board (TB-WPH) <u>Wires and Cables</u>	No.	1				
5	4P-CAT5e UTP CABLE (interconnection)	m	60				
6	4P-CAT6 UTP CABLE (interconnection) <u>Conduits</u>	m	60				
7	15 mm dia	m	45				
8	20 mm dia	m	35				
Total to Series Summary							
<u>Section B62-6800: Fire Detection And Alarm</u>							
<u>Equipment / Devices</u>							
1	Smoke detector (addressable)	No.	14				
2	Heat Detector (addressable)	No.	7				
3	Fire alarm bell	No.	1				
4	Manual Fire Alarm Station	No.	1				
5	Remote Annunciator Panel	No	1				
6	Fireman's Telephone Jack	No.	1				
7	Fire Alarm Terminal Cabinet (FATC-PWH)	No	1				
<u>Wires & Cables</u>							
8	1.25 mm ² TF Wires (interconnection)	m	50				
<u>Conduits</u>							
9	15 mm dia	m	200				
Total to Series Summary							
<u>Section B62-6900: Grounding System</u>							
1	Grounding System	Sum	1				
Total to Series Summary							

Subcomponent-4-6: Utility Buildings

B63: STP Control Room

Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-6: (B6) UtilityBuildings B63: STP Control Room Summary Section B63-4000 : Architectural Works Section B63-5000 : Mechanical Works Section B63-6000 : Electrical Works Total to Subcomponent Summary						

Subcomponent-4-6: Utility Buildings

B63: STP Control Room

Section B63-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B63-4000 series : Architectural Works Summary						
	Series Summary						
	Section B63-4110 : Earthwork						
	Section B63-4120 : Termite Control						
	Section B63-4220 : Concrete Works						
	Section B63-4310 : Blockworks						
	Section B63-4320 : Waterproofing						
	Section B63-4340 : Windows/Doors						
	Section B63-4350 : Metalworks						
	Section B63-4370 : Finishes						
	Section B63-4380 : Miscellaneous Fittings & Furniture						
	Total to B63 STP Control Room Summary						
	Section B63-4110 : Earthwork						
	Excavation						
1	Columns foundations and pits	m ³	64				
	Excavation in Rock						
2	Columns foundations and pits	m ³	16				
	Filling						
3	Backfilling to excavations	m ³	68				
	Filling/Compaction						
5	Gravel bed; 50mm thick	m ²	106				
6	Gravel bed; 50mm thick to external sidewalk (29/MD)	m ²	150				
7	Polyethylene waterproof membrane	m ²	60				
	Total to Series Summary						
	Section B63-4120 : Termite Control						
1	Soil treatment	m ²	298				
	Total to Series Summary						
	Section B63-4220 : Concrete Works						
	In - situ Concrete						
	Reinforced concrete : Class B3 in:						
1	Blinding concrete; 50mm thick	m ³	5				
2	Blinding layer; 50 mm thick to external sidewalk (29/MD)	m ³	8				
	Reinforced Concrete Class B1 in:						
3	Column foundations	m ³	10				

Subcomponent-4-6: Utility Buildings
B63: STP Control Room
Section B63-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
4	Ground beams	m ³	7				
5	Columns	m ³	6				
6	Beams	m ³	9				
7	Suspended slabs	m ³	15				
8	Parapet	m ³	8				
	<u>Reinforced Concrete Class B2 in:</u>						
9	Ground floor slab	m ³	9				
10	Base slab to external sidewalk (29/MD)	m ³	15				
	<u>Formwork</u>						
	<u>Class F1 Formwork in:</u>						
11	Column foundations	m ²	19				
12	Ground beams	m ²	49				
13	Columns	m ²	90				
14	Beams	m ²	61				
15	Ground slab	m ²	6				
16	Suspended slabs	m ²	121				
17	Parapet	m ²	110				
	<u>Class F3 Formwork in:</u>						
18	Suspended slabs	m ²	2				
	<u>Reinforcement</u>						
19	Reinforcement bars - (grade 40 = 276 N/m ²) 10mm ~ 12mm	Kg	2,698				
20	Reinforcement bars - (grade 60 = 415 N/m ²) 16mm ~ 25mm	Kg	2,863				
	Total to Series Summary						
	<u>Section B63-4310 : Blockworks</u>						
	<u>Hollow Concrete Block</u>						
1	Walls; 150mm thick	m ²	117				
	<u>Reinforced Concrete Class B2 in Lintels and Stiffeners</u>						
1	Lintel beam above opening; 150 x 200mm including formwork and reinforcement	m	27				
2	Stiffener beam; 150 x 300mm including formwork and reinforcement	m	20				
3	Stiffener column; 150 x 300mm including formwork and reinforcement	m	69				
	Total to Series Summary						

Subcomponent-4-6: Utility Buildings

B63: STP Control Room

Section B63-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section B63-4320 : Waterproofing</u>							
<u>Waterproofing Membrane</u>							
<u>Built-up Bitumen Felt Water Proofing System; WP-1</u>							
1	Waterproofing system with insulation applied to surface (1/RD)	m ²	108				
2	Waterproofing system applied to parapet wall (3/RD)	m ²	24				
3	50mm Thick protection concrete with 4mm diameter at 100mm welded wire mesh in steel trowel finish (3/RD)	m ²	108				
4	25mm Wide contraction gap w/ sealant in protection concrete (3/RD)	m	49				
5	350mm Wide steel trowel finish roof ditch with metal lath	m	18				
<u>Urethane Waterproofing Coating WP -3</u>							
6	To floor ; toilet, shower, pantry and laboratory	m ²	24				
7	To wall; toilet, shower, pantry and laboratory	m ²	8				
<u>Underground External Waterproofing Coating WP -5</u>							
8	Waterproofing applied to cable trench; pit and dropped slab	m ²	20				
Total to Series Summary							
<u>Section B63-4340 : Windows/Doors</u>							
<u>WOOD DOOR SETS: flush type ; as shown on door & window schedule drawing; including all ironmongery, louvers, openings, wood frames and beads and all fixing lugs, mortar bedding/filling and sealants</u>							
1	1/WD 800 x 2100 mm w/ louver	No.	1				
2	2/WD 700 x 2100 mm w/ louver	No.	1				
3	3/WD 800 x 2100 mm w/ louver	No.	1				
<u>STEEL DOOR SETS ; flush type as shown on door & window schedule drawing ; including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling</u>							
4	1/SD 1800 x 2100 mm w/ louver	No.	2				
<u>ALUMINIUM WINDOWS WITH INSECT SCREENS: as shown on Drawings, including glazing, beads, gaskets, ironmongery, thresholds, frame set and fixing lug, mortar bedding/filling and sealants</u>							
5	1/AW 2370 x 700 mm	No.	4				
6	2/AW 1570(900) x 1500(2100) mm	No.	1				
7	3/AW 1570(1350) x 1500(2100) mm	No.	1				

Subcomponent-4-6: Utility Buildings

B63: STP Control Room

Section B63-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
8	4/AW 805 x 700 mm	No.	1				
9	5/AW 780 x 700 mm	No.	2				
Total to Series Summary							
Section B63-4350 : Metalworks							
Miscellaneous Metal Works							
1	Roof drain outlet 100 mm diameter (3/RD)	No.	4				
2	Cable trench cover, W<600 ; Mild steel grating w/ primer paint	m	22				
3	Cable trench cover seat 50 x 50 x 4mm thick Angle bar w/ 10mm diameter dowel bar w/ primer paint (31/MD)	m	22				
Total to Series Summary							
Section B63-4370 : Finishes							
In-situ Internal Finishes							
1	Cement render to floor; 50mm thick; to receive damp proof paint P-6 (F8)	m ²	36				
2	Cement render to floor; 42mm thick; to receive ceramic tiles (F4)	m ²	24				
3	Cement render to walls; 20mm thick; to receive paint (W3 and W4)	m ²	68				
4	Cement render to floor; 42mm thick to receive vinyl tiles	m ²	30				
5	Cement render to walls; 22mm thick; to receive ceramic tiles (W2)	m ²	82				
Ceramic Tile Covering							
6	Ceramic tiles to floors; 300 x 300 x 8mm thick (F-4)	m ²	24				
7	Ceramic tiles to wall; 300 x 300 x 8mm thick (W-2)	m ²	82				
Suspended Ceilings and Bulkheads; including supports and suspension system							
8	600 x 600 x 15mm Thick acoustic rockwool ceiling system (C-1)	m ²	36				
9	8mm Thick calcium board (C-3) w/ P-4	m ²	6				
10	Suspended Double Ceiling t=12.5 on t=9.5 Sheeting gypsums (C6)	m ²	18				
Painting/Clear Finishing							
Synthetic resin emulsion paint (P-1) to:							
11	Cement rendered wall (W-3)	m ²	68				
Synthetic resin mixed paint type A (P-2) to:							
12	Wood doors	m ²	17				

Subcomponent-4-6: Utility Buildings

B63: STP Control Room

Section B63-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
13	Synthetic resin mixed paint type B (P-3) to: Steel doors	m ²	7				
14	Synthetic resin emulsion multi-layer coating (P-4) to Cement rendered external wall	m ²	191				
15	Calcium Silicate board	m ²	6				
16	Epoxy resin floor paint (P-6) to: Cement rendered floors (F-8)	m ²	24				
17	Skirting to Control room	m	24				
Total to Series Summary							
Section B63-4380 : Miscellaneous Fittings and Furniture Miscellaneous Fitting							
1	Clear mirror	m ²	1				
2	Counter with Stainless steel sink including supporting frames and necessary fixations Over all size 600 x 3100mm	No.	1				
Total to Series Summary							

Subcomponent-4-6: Utility Buildings
 B63: STP Control Room
 Section B63-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B63-5000 : Mechanical Work Summary						
	Series Summary						
	Section B63-5100 : Sanitary and Plumbing						
	Section B63-5200 : Ventilation and Air Condition						
	Section B63-5300 : Fire Protection						
	Total to B63 STP Control Room Summary						
	Section B63-5100 : Sanitary and Plumbing						
	Sanitary Fixtures						
1	WC-4 Water Closet (FV)	No.	1				
2	LAV-3 Lavatory	No.	1				
3	SHW-1 Shower set	No.	1				
4	Faucet for pantry sink	No.	1				
5	PH-2 Toilet paper holder	No.	1				
6	SopHolder	No.	1				
	Water Distribution System						
	Piping Works						
	Pipeworks, Polyvinyl chloride pipe (Hight Dencity VP) Incl, Fittings,Hangers, Supports, Sleeves, Inserts and Accessories.						
7	20 mm diameter	m	17				
8	25 mm diameter	m	15				
	Gate Valves JIS 10 Kg/cm2						
9	20 mm diameter	No.	1				
10	25 mm diameter	No.	1				
11	Flexible joint; 20 mm diameter	No.	3				
12	Valve box	No.	1				
13	Water Hammer Arrester	No.	1				
	Hot Water Distribution						
	Equipment						
	Incl,Hangers, Supports, Sleeves, Inserts and Accessories						
14	Electric Water Heater Single Type	No.	2				
	Hot Water Piping Works						
	Cooper Pipe,Type L						
	Incl,Fittings, Hangers, Supports, Sleeves, Inserts and Accessories						
15	15mm	m	12				

Subcomponent-4-6: Utility Buildings
B63: STP Control Room
Section B63-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
16	Gate Valve JIS 10Kg/cm2 15 mm	No.	2				
	Sewer Piping System						
	Pipeworks, Polyvinyl chloride pipe (VP) Incl, Fittings,Hangers, Supports, Sleeves, Inserts,Excavation, Back Filling,Sand Bedding and Accessories.						
17	50 mm diameter	m	26				
18	100 mm diameter	m	36				
	Clean-out						
19	50 mm diameter	No.	1				
20	100 mm diameter	No.	1				
	Floor Drains						
21	50 mm diameter	No.	1				
	Shower Drain						
22	50 mm diameter	No.	1				
	Vent Cap, SUS						
23	50 mm diameter	No.	1				
	Storm Drain						
	Pipeworks Above Ground Galvanized carbon steel pipe, ASTM Sch-40 Incl, Hangers, Supports, Sleeves, Inserts and Accessories.						
24	100 mm diameter	m	18				
	Under Ground Pipeworks, Polyvinyl chloride pipe (VP) Incl, Fittings,Hangers, Supports, Sleeves, Inserts,Excavation, Back Filling,Sand Bedding and Accessories.						
25	100 mm diameter	m	25				
	Roof Drain						
26	100 mm diameter	No.	4				
27	Storm drain pit	No.	4				
Total to Section Summary							
	Section B63-5200 : Ventilation and Air Condition						
	Ceiling Suspended split air-conditioning Type Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.						
1	Cooling capacity 7.0KW	No.	1				
	Wall mounted split air-conditioning type Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.						

Subcomponent-4-6: Utility Buildings
B63: STP Control Room
Section B63-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
2	Cooling capacity 3.51KW Refrigerant pipes, copper pipes type "L" Incl, Fittings,Hangers, Supports, Sleeves, Inserts and Accessories.	No.	1				
3	6.35 mm diameter	m	9				
4	9.53 mm diameter	m	19				
5	15.88 mm diameter	m	11				
	Thermal Insulation Closed cell elastomeric thermai insulation						
6	6.35 mm diameter (30 mm thick)	m	9				
7	9.53 mm diameter (30 mm thick)	m	19				
8	15.9 mm diameter (30 mm thick)	m	11				
	Condensate Drain Piping PVC(VP) Pipes Incl, Fittings, Hangers, Supports,Sleeves, Inserts,Excavation, Back filling, Sand Bedding and Accessories.						
9	50 mm diameter (PVC-VP)	m	14				
10	25 mm diameter (PVC-VP)	m	14				
	Condensate Drain Insulation Thermal Insulation Closed cell elastomeric thermai insulation						
11	50 mm diameter (20 mm thick)	m	14				
12	25 mm diameter (20 mm thick)	m	14				
	Aluminum cladding						
13	Aluminum sheet(Ga#26)	sq m	36				
	Mechanical Ventilation System Equipment Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.						
14	Ceiling cassette exhaust fans Q=171 lps	No.	1				
15	Ceiling cassette exhaust fans Q=109 lps	No.	1				
16	Ceiling cassette exhaust fans Q=30 lps	No.	3				
	Duct Works Incl, Hangers, Supports, Sleeves, Inserts and Accessories.						
	Spiral Duct						
17	150 mm diameter	m	12				
18	200 mm diameter	m	8				
	Vent Cap, SUS						
19	200 mm diameter	No.	3				

Subcomponent-4-6: Utility Buildings
 B63: STP Control Room
 Section B63-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
20	300 mm diameter	No.	2				
Total to Section Summary							
Section B63-5300 : Fire Protection							
<u>Portable Fire Extinguisher</u>							
1	ABC Type, 4.5 Kg	No.	3				
2	CO2 Type, 4.5 Kg	No.	1				
3	Fire extinguisher bracket W/ housing	No.	4				
Total to Section Summary							

Subcomponent-4-6: Utility Buildings

B63: STP Control Room

Section B63-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Subcomponent-4-6: (B63) Electrical Works</p> <p style="text-align: center;">Series Summary</p> <p>Section B63-6100: Power Feeder System</p> <p>Section B63-6200 : Lighting And Receptacle</p> <p>Section B63-6300 : Telephone and Data System</p> <p>Section B63-6800 : Fire Detection And Alarm</p> <p>Section B63-6900 : Lightning Protection and Grounding System</p> <p style="text-align: right;">Total to Section Summary</p>						
	<p>Section B63-6100 : Power Feeder System</p>						
1	LPPN	No.	1				
2	1C-6mm ² XLPE	m	60				
3	8mm ² TW	m	20				
4	300mm (W) cable tray	m	18				
	Total to Series Summary						
	<p>Section B63-6200 : Lighting And Receptacle System</p> <p>Lighting Fixture</p>						
1	4 x 18w Fluorescent fixture, louver type	No.	10				
2	2 x 36w Fluorescent fixture, industrial type	No.	4				
3	1x18w PLC	No.	3				
	<p>Wiring Devices / Receptacle and Boxes</p>						
4	Convenience outlet duplex	No.	7				
5	Convenience outlet duplex, Weather pproof	No.	1				
6	One - gang switch	No.	5				
7	Two-gang switch	No.	1				
8	Three-gang switch	No.	1				
	<p>Wires and Cables</p>						
9	3.5mm ² THHN	m	650				
10	5.5mm ² THHN	m	70				
	<p>Conduit</p>						
11	20mm dia	m	200				
	<p>External Lighting</p>						

Subcomponent-4-6: Utility Buildings

B63: STP Control Room

Section B63-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Lighting Fixture</u>							
12	Hot Dip Galvanized, Double Arm Lighting Pole, 12m	No.	2				
13	120W LED Type Light, Complete with Lighting Fixture, etc.	No.	4				
14	Lighting Pole Pedestal/Foundation, 12m	No.	2				
15	Handholes	No.	7				
<u>Wires and Cables for External Lighting</u>							
16	5.5mm ² THHN	m	150				
<u>Conduit for STP Facilities Site</u>							
17	3-75mm Ø PVC	m	60				
18	2-75mm Ø PVC	m	35				
19	6-50mm Ø PVC	m	60				
20	4-50mm Ø PVC	m	95				
21	2-50mm Ø PVC	m	105				
22	1-100mm Ø PVC	m	70				
23	1-75mm Ø PVC	m	140				
24	1-32mm Ø PVC	m	390				
Total to Series Summary							
<u>Section B63-6300 : Telephone and Data System</u>							
<u>Equipment / Devices</u>							
1	Telephone outlet w/ RJ11	No.	1				
2	Single Line Telephone	No.	1				
3	Terminal Board (TB-STP)	No.	1				
<u>Wires and Cables</u>							
4	4P-CAT5e UTP CABLE (interconnection)	m	36				
<u>Conduits</u>							
5	20 mm dia	m	15				
Total to Series Summary							
<u>Section B63-6800 : Fire Detection And Alarm</u>							
<u>Equipment / Devices</u>							
1	Smoke detector	No.	3				
2	Fire alarm bell	No.	1				
3	Manual Fire Alarm Station	No.	1				

Subcomponent-4-6: Utility Buildings

B63: STP Control Room

Section B63-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
4	Remote Annunciator Panel	No	1				
5	Fireman's Telephone Jack	No.	1				
6	Fire Alarm Terminal Cabinet (FATC-STP)	No	1				
	<u>Wires & Cables</u>						
7	1.25 mm ² TF Wires (interconnection)	m	10				
	<u>Conduits</u>						
8	15 mm dia	m	30				
	Total to Series Summary						
	<u>Section B63-6900 : Grounding System</u>						
1	Grounding System	Sum	1				
	Total to Series Summary						

Subcomponent-4-6: Utility Buildings

B64: Material Recover Facility

Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-6: (B6) Utility Buildings						
	B64: Material Recovery Facility Summary						
	Section B64-4000 : Architectural Works						
	Section B64-5000 : Mechanical Works						
	Section B64-6000 : Electrical Works						
	Total to Subcomponent Summary						

Subcomponent-4-6: Utility Buildings
 B64: Material Recover Facility
 Section B64-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section B64-4000 series : Architectural Works</p> <p>Series Summary</p> <p>Section B64-4110 : Earthwork</p> <p>Section B64-4220 : Concrete Works</p> <p>Section B64-4310 : Blockworks</p> <p>Section B64-4230 : Structural Steelworks</p> <p>Section B64-4330 : Roofing Cladding and Facades</p> <p>Section B64-4370 : Finishes</p> <p>Total to B64 Material Recoverly Facility Summary</p>						
	<p>Section B64-4110 : Earthwork</p> <p><u>Excavation</u></p> <p>1 Column foundations m3 15</p> <p>2 Ground beams m3 6</p> <p><u>Excavation in Rock</u></p> <p>3 Column foundation and pits m³ 4</p> <p>4 Ground beams m³ 2</p> <p><u>Filling</u></p> <p>5 Backfilling to foundations m3 18</p> <p><u>Filling/Compaction</u></p> <p>6 Gravel bed; 50mm thick m³ 118</p> <p>7 Gravel bed; 50mm thick to external sidewalk (29/MD) m³ 72</p> <p>Total to Series Summary</p>						
	<p>Section B64-4220: Concrete Works</p> <p><u>In-situ Concrete</u></p> <p>Reinforced Concrete: Class B3 in:</p> <p>1 Blinding layer; 50mm thick m³ 6</p> <p>Reinforced Concrete: Class B1 in:</p> <p>2 Column Foundation m³ 3</p> <p>3 Ground beams m³ 7</p> <p>4 Column m³ 5</p> <p>5 Beam m³ 7</p> <p>6 Canopy m³ 2</p>						

Subcomponent-4-6: Utility Buildings
B64: Material Recover Facility
Section B64-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
7	Reinforced Concrete; Class B2 in: Ground floor Slab	m ³	14				
8	Base slab to external sidewalk (29/MD)	m ³	7				
	Formwork						
	Class F1 Formwork in:						
9	Column Foundation	m ²	12				
10	Ground beams	m ²	60				
11	Beam	m ²	70				
12	Column	m ²	73				
13	Canopy	m ²	24				
14	Ground slab	m ²	6				
	Reinforcement						
15	Reinforcement bars - (grade 40, = 276 N/mm2) 10 mm ~ 12mm	kg	1,540				
16	Reinforcement bars - (grade 60, = 415 N/mm2) 16 mm ~ 25mm	kg	1,541				
Total to Series Summary							
Section B64-4310: Blockwork							
	Hollow Concrete Block						
1	Wall; 150mm thick	m ²	121				
	Reinforced Concrete Class B2 in Lintels and Stiffeners						
2	Lintel beam above opening; 150 x 200mm including formwork and reinforcement	m	28				
3	Stiffener beam; 150 x 300mm including formwork and reinforcement	m	34				
4	Stiffener column; 150 x 300mm including formwork and reinforcement	m	22				
Total to Series Summary							
Section B64-4230 : Structural Steelworks							
1	Supply, fabricate and deliver structural steel work	kg	537				
2	Supply pre-painted C channel purlins	kg	572				
Total to Series Summary							
Section B64-4330 : Roofing Cladding and Facades							
1	0.6mm Thick single folded steel plate pre-painted Galvalume fluorine resin coated; curved	m ²	96				

Subcomponent-4-6: Utility Buildings
B64: Material Recover Facility
Section B64-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
2	0.8mm Thick steel roof gutter ; 915 girth	m	12				
3	Steel roof drain outlet 100 mm diameter (3/RD)	No.	2				
Total to Series Summary							
Section B64-4370: Finishes							
In-situ Finishes							
Internal Finishes							
1	Cement render to floor; 50mm thick; including surface hardener (F11)	m2	96				
2	Cement render to walls, columns, and beams; 20mm thick; to receive paint (W4)	m2	132				
External Finishes							
3	Cement render to walls, columns, and beams; 20mm thick; to receive paint (W4)	m2	107				
Painting/Clear Finishing							
Synthetic resin emulsion paint (P-1) to:							
4	Cement rendered wall (W-4)	m2	239				
Synthetic resin mixed paint type B (P-8) to:							
5	Steel Structures	m2	80				
Total to Series Summary							

Subcomponent-4-6: Utility Buildings
 B64: Material Recover Facility
 Section B64-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B64-5000 Series: Mechanical Works						
	Series Summary						
	Section B64-5100 : Sanitary and Plumbing						
	Section B64-5200 : Ventilation and Air Conditioning						
	Section B64-5300 : Fire Protection						
	Total to B64 Material Recovery Facility Summary						
	Section B64-5100 : Sanitary and Plumbing						
1	Water Hose Bibb WHB-1 20mm dia. 20 m long hose	No.	1				
2	Water Hose Bibb WHB-2 20mm dia. 5 m long hose	No.	1				
3	Gate Valves	No.	1				
4	Valve box, C.I (25mm)	No.	1				
	Water Distribution System						
	Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories.						
5	Pipeworks, PVC(VP) 25 mm diameter	m	22				
6	Pipeworks, PVC(VP) 20 mm diameter	m	30				
7	Water Hammer Arrestor	No.	1				
	Total to Section Summary						
	Section B64-5200 : Ventilation and Air Conditioning						
	Mechanical Ventilation System						
	Equipment						
	Exhaust Fans						
	Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.						
1	Roof Ventilator Direct Driven, Q = 600 lps	No.	1				
	Total to Section Summary						
	Section 5300 : Fire Protection						
	Portable Fire Extinguisher						
1	ABC Type, 4.5 kg	No.	1				
2	Fire extinguisher bracket W/housing	No.	1				
	Total to Section Summary						

Subcomponent-4-6: Utility Buildings

B64: Material Recover Facility

Section B64-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Subcomponent-4-6: (B64) Electrical Works</p> <p>Series Summary</p> <p>Section B64-6200 : Lighting And Receptacle</p> <p>Section B64-6900 : Lightning Protection and Grounding System</p> <p>Total to Section Summary</p>						
	<p>Section B64-6200 : Lighting And Receptacle System</p>						
1	1 x 36W Fluorescent fixture, industrial type	No.	4				
2	Duplex Convenience Outlet, Weatherproof	No.	1				
3	Two-gang switch	No.	1				
4	3.5mm ² THHN	m	110				
5	15mm dia	m	33				
	Total to Series Summary						
	<p>Section B64-6900 : Grounding system</p>						
1	Grounding system	Sum	1				
	Total to Series Summary						

BILL OF QUANTITIES
OF
SUBCOMPONENT-4-B7:

Navais Buildings

B71: LLZ Building

B72: GS Building

B73: VOR Building

Subcomponent-4-7: Nav aids Buildings
Subcomponent-4-B7: Nav aids Buildings Summary
Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-7: (B7) Nav aids Buildings						
	Subcomponent Summary						
	4-B71: LLZ Building						
	4-B72: GS Building						
	4-B73: VOR Building						
	Total to Component Summary						

Subcomponent-4-7: Nav aids Buildings

B71: LLZ Building

Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Subcomponent-4-7: (B7) Nav aids Buildings</p> <p>B71: LLZ Building Summary</p> <p>Section B71-4000 Series: Architectural Works</p> <p>Section B71-5000 Series: Mechanical Works</p> <p>Section B71-6000 Series: Electrical Works</p> <p>Total to Subcomponent Summary</p>						

Subcomponent-4-7: Navajds Buildings

B71: LLZ Building

Section B71-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B71-4000 Series: Architectural Works						
	Series Summary						
	Section B71-4110 : Earthwork						
	Section B71-4120 : Termite Control						
	Section B71-4220 : Concrete Works						
	Section B71-4310 : Blockwork						
	Section B71-4320 : Waterproofing						
	Section B71-4340 : Windows/Doors						
	Section B71-4350 : Metalworks						
	Section B71-4370 : Finishes						
	Section B71-4380 : Miscellaneous Fittings and Furniture						
	Total to B71 LLZ Building Summary						
	Section B71-4110 : Earthwork						
	Excavation						
1	Normal Excavation	m ³	7				
2	Excavation in Rock	m ³	2				
	Filling						
3	Backfilling to excavations	m ³	8				
	Filling/Compaction						
4	Gravel bed; 50mm thick	m ²	33				
5	Gravel bed; 50mm thick to external sidewalk (29/MD)	m ²	106				
6	Polyethylene waterproofing membrane	m ²	28				
	Total to Series Summary						
	Section B71-4120 : Termite Control						
1	Soil treatment	m ²	135				
	Total to Series Summary						
	Section 4220 : Concrete Works						
	In-situ Concrete						
	Reinforced Concrete: Class B3 in:						
1	Blinding concrete; 50mm thick	m ³	2				
2	Blinding layer; 50 mm thick to external sidewalk (29/MD)	m ³	6				
	Reinforced Concrete Class B1 in:						
3	Column foundations	m ³	2				

Subcomponent-4-7: Navajds Buildings

B71: LLZ Building

Section B71-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
4	Columns	m ³	3				
5	Beams	m ³	3				
6	Suspended slabs	m ³	3				
7	Parapet	m ³	3				
Reinforced Concrete Class B2 in:							
8	Ground floor slab	m ³	4				
9	Base slab to external sidewalk (29/MD)	m ³	11				
Formwork							
Class F1 Formwork in:							
10	Column foundations	m ²	8				
11	Columns	m ²	29				
12	Beams	m ²	30				
13	Suspended slabs	m ²	14				
14	Walls	m ²	27				
15	Ground slab	m ²	3				
Class F3 Formwork in:							
16	Suspended slab	m ²	16				
Reinforcement bars - (grade 40 = 276 N/m²)							
17	10mm ~ 12mm	Kg	842				
Reinforcement bars - (grade 60 = 415 N/m²)							
18	10mm ~ 12mm	Kg	512				
Total to Series Summary							
Section B71-4310 : Blockwork							
Hollow concrete block							
1	Wall; 150mm thick	m ²	67				
Reinforced Concrete Class B2 in Lintels and Stiffeners							
2	Lintel beam above opening; 150 x 200mm including formwork and reinforcement	m	7				
3	Stiffener beam; 150 x 300mm including formwork and reinforcement	m	18				
4	Stiffener column; 150 x 300mm including formwork and reinforcement	m	14				
Total to Series Summary							
Section B71-4320 : Waterproofing							
Waterproofing Membrane							
Built-up Bitumen Felt Water Proofing System; WP-1							
1	Waterproofing System with insulation applied to surface (1/RD)	m ²	28				

Subcomponent-4-7: Navajds Buildings

B71: LLZ Building

Section B71-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
2	Waterproofing System applied to parapet wall (1/RD)	m ²	6				
3	50mm Thick protection concrete with 4mm diameter at 100mm welded wire mesh in steel trowel finish (1/RD)	m ²	28				
4	25mm Wide contraction gap w/ sealant in protection concrete (1/RD)	m	32				
5	350mm wide steel trowel finish roof ditch with metal lath	m	5				
Total to Series Summary							
Section B71-4340 : Windows/Doors							
<u>WOOD DOOR SETS : flush type as shown on door & window schedule drawing : including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling</u>							
1	1/WD 900 x 2100 mm w/ louver	No.	1				
<u>STEEL DOOR SETS : flush type as shown on door & window schedule drawing : including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling</u>							
2	1/SD 1400 x 2400 mm w/ louver	No.	1				
3	2/SD 900 x 2100 mm	No.	1				
4	3/SD 900 x 2400 mm w/ louver	No.	1				
Total to Series Summary							
Section B71-4350 : Metalworks							
1	Roof drain outlet 100 mm diameter. (1/RD)	No.	2				
2	Trench cover seat, 4.5mm thick checkered steel plate w/ 40 x 40 x 4.5mm thick steel angle frame (31/MD)	m ²	2				
3	Trench cover seat, 50 x 50 x 4mm thick steel angle w/ 10mm diameter dowel bar at 500mm c.c, including edging frame, 25 x 6mm thick SUS 304 flat bar. (31/MD)	m	12				
Total to Series Summary							
Section B71-4370 : Finishes							
In-situ Internal Finishes							
1	Cement render to floor; 50mm thick to receive damp, proof paint	m ²	13				
2	Cement render to floor; 38mm thick, to receive vinyl tiles	m ²	15				
3	Cement render to wall; 20mm thick to receive paint	m ²	110				

Subcomponent-4-7: Navajds Buildings

B71: LLZ Building

Section B71-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	External Finishes						
4	Cement render to external wall; 20mm thick to receive paint	m ²	102				
5	Cement render to sidewalk 30mm thick (29/MD)	m ²	59				
	Flexible Tile/Sheet						
6	300 x 300 x 2mm Thick anti-static vinyl tiles	m ²	15				
	to floors (F-6)						
7	Polyvinyl soft tile to skirting 100mm high x 2mm thick (S-4)	m	17				
	Suspended Ceilings and Bulkheads including supports and suspension system						
8	600 x 600 x 15mm Thick acoustic rockwool ceiling system (C-1)	m ²	18				
	Painting/Clear Finishing						
	Synthetic resin emulsion paint (P-1) to:						
9	Cement rendered wall (W-3); 30mm thick	m ²	110				
10	Formed face concrete ceiling	m ²	16				
	Synthetic resin mixed paint type B (P-2) to:						
11	Wood doors	m ²	4				
	Acrylic resin enamel paint (P-7) to;						
12	Galvanized SGP downspout pipe; 100mm 100mm Diameter uPvc downspout pipe	m	7				
	Synthetic resin mixed paint type B (P-3) to;						
13	Steel doors	m ²	15				
14	Trench cover	m ²	4				
	Synthetic resin emulsion multi-layer coating (P-4) to:						
15	Concrete external walls	m ²	102				
	Epoxy resin floor paint (P-6) to:						
16	Cement rendered floors (F-8)	m ²	13				
	Total to Series Summary						

Subcomponent-4-7: Navajds Buildings

B71: LLZ Building

Section B71-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section B71-5000 Series : Mechanical Works Summary</p> <p>Section B71-5100 : Sanitary and Plumbing</p> <p>Section B71-5200 : Ventilation and Air Condition</p> <p>Section B71-5300 : Fire Protection</p> <p>Total to B71 LLZ Building Summary</p>						
	<p>Section B71-5100 : Sanitary and Plumbing</p> <p>Plumbing and Sanitary</p> <p>Storm Drain</p> <p>Above Ground</p> <p>Galvanized carbon steel pipe, ASTM Sch-40 Incl, Hangers, Supports,Sleeves, Inserts and Accessories.</p> <p>1 100mm diameter m 8</p> <p>Under Ground</p> <p>Polyvinyl chloride pipe (VP) Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories.</p> <p>2 100mm diameter m 10</p> <p>Roof Drain</p> <p>3 100mm diameter No. 2</p> <p>4 Catch Basin No. 2</p> <p>5 Catch Basin Cover No. 2</p> <p>Total to Section Summary</p>						
	<p>Section 5200 : Ventilation and Air Conditioning</p> <p>Air Conditioning System</p> <p>Equipment</p> <p>Air Cooled Packaged Air Conditioner Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.</p> <p>1 Wall Mounted AC Unit No. 2 Cooling Capacity 7 kw</p> <p>Refrigerant pipes, copper pipes type "L" Incl, Fittings, Hangers, Supports,Sleeves, Inserts and Accessories.</p> <p>2 6.35 mm diameter m 16</p> <p>3 15.88 mm diameter m 16</p> <p>Thermal Insulation</p> <p>Closed cell elastomeric thermai insulation</p> <p>4 6.35 mm diameter (30 mm thick) m 16</p> <p>5 15.88 mm diameter (30 mm thick) m 16</p> <p>Pipe Fittings</p> <p>Filter Drier</p>						

Subcomponent-4-7: Navajds Buildings

B71: LLZ Building

Section B71-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
6	6.35 mm diameter	No.	1				
	Moisture Indicator						
7	6.35 mm diameter	No.	1				
	Condensate Drain Piping: PVC Pipes						
	Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories.						
8	25 mm diameter (PVC-VP)	m	10				
	Condensate Drain Insulation						
	Thermal Insulation						
	Closed cell elastomeric thermal insulation						
9	25 mm diameter (20 mm thick)	m	10				
	Aluminum Cladding						
10	Aluminum Sheet (Ga. # 28)	m ²	16				
	Mechanical Ventilation System						
	Equipment						
	Exhaust Fans						
	Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.						
11	In-Line Axial Fan Direct Driven c/w Direct Driven Motor, Q= 170 lps	No.	1				
12	Wall Mounted Exhaust Fan, Q = 150 lps	No.	1				
	Duct Works						
	G.I sheets						
	Incl, Hangers, Supports, Sleeves, Inserts and Accessories.						
13	0.6 mm (Ga. # 24)	m ²	8				
14	0.8 mm (Ga. # 22)	m ²	16				
	Exhaust Air Grilles (EA)						
15	300 x 300 mm	No.	3				
	Exhaust Air Louvers (EA)						
16	500 x 400 mm	No.	1				
	Volume Damper						
17	200 x 200 mm	No.	3				
	Backdraft Damper						
18	300 x 200 mm	No.	1				
	Total to Section Summary						
	Section B71-5300 : Fire Protection						
	Portable Fire Extinguisher						
1	ABC Type, 4.5 kg	No.	1				
2	CO ₂ Type, 9.0 Kg	No.	1				
3	CO ₂ Type, 23.0 Kg	No.	1				
	Total to Section Summary						

Subcomponent-4-7: Navaid's Buildings

B71: LLZ Building

Section B71-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B71-6000 Series : Electrical Works						
	Series Summary						
	Section B71-6100 : Power Feeder System						
	Section B71-6200 : Lighting And Receptacle						
	Section B71-6300 : Telephone and Data System						
	Section B71-6800 : Fire Detection And Alarm						
	Section B71-6900 : Lightning Protection and Grounding System						
	Total to B71 LLZ Building Summary						
	Section B71-6100: Power Feeder System						
	Power Feeder System						
1	LPPNE-LLZ	No.	1				
2	1C-4mm ² XLPE	m	40				
3	5.5mm ² TW	m	20				
4	200mm (W) cable ladder	m	10				
	Total to Series Summary						
	Section B71-6200: Lighting And Receptacle System						
	Lighting Fixtures						
1	1 x 36W Fluorescent fixture, industrial type	No.	2				
2	1 x 36W Fluorescent fixture, batten type	No.	1				
3	4 x 18W Fluorescent fixture, louver type	No.	5				
4	1 x 18W PLC	No.	2				
	Wiring Devices & Receptacle						
5	Duplex convenience outlet	No.	9				
6	Two-gang switch	No.	2				
7	Three-gang switch	No.	2				
8	30AT, 100AF, 2P ECB	No.	2				
	Wires & Cables						
9	3.5mm ² THHN	m	380				
	Conduits						
10	15mm dia	m	110				
	Total to Series Summary						

Subcomponent-4-7: Nav aids Buildings

B71: LLZ Building

Section B71-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section B71-6300: Telephone and Data System</u>							
<u>Equipment / Devices</u>							
1	Telephone outlet with RJ11 Device	No	2				
2	Single Line Telephone	No.	1				
3	Terminal Board (TB-VOR)	No	1				
<u>Wires and Cables</u>							
4	4P-Cat5e UTP Cable (interconnection)	m	20				
<u>Conduits</u>							
5	15mm dia	m	4				
6	20mm dia	m	10				
Total to Series Summary							
<u>Section B71-6800: Fire Detection And Alarm</u>							
<u>Equipment / Devices</u>							
1	Smoke Detector (addressable)	No	4				
2	Fireman Alarm manual pull station	No	1				
3	Alarm bell	No	1				
4	Remote Annunciator Panel	No	1				
5	Fire Alarm Terminal Cabinet (FATC-LLZ)	No	1				
6	Remote Telephone Handset	No	1				
<u>Wires and Cables</u>							
7	1.25 mm ² TF Wires (interconnection)	m	10				
<u>Conduits</u>							
8	15 mm dia	m	26				
Total to Series Summary							
<u>Section B71-6900 : Grounding System</u>							
1	Grounding System	Sum	1				
Total to Series Summary							

Subcomponent-4-7: Navaid Buildings

B72: GS Building

Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Subcomponent-4-7: (B7) Navaid Buildings</p> <p>B72: GS Building Summary</p> <p>Section B72-4000 Series: Architectural Works</p> <p>Section B72-5000 Series: Mechanical Works</p> <p>Section B72-6000 Series: Electrical Works</p> <p>Total to Subcomponent Summary</p>						

Subcomponent-4-7: Navais Buildings

B72: GS Building

Section B72-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B72-4000 series : Architectural Works						
	Section B72-4110 : Earthwork						
	Section B72-4120 : Termite Control						
	Section B72-4220 : Concrete Works						
	Section B72-4310 : Blockworks						
	Section B72-4320 : Waterproofing						
	Section B72-4340 : Windows/Doors						
	Section B72-4350 : Metalworks						
	Section B72-4370 : Finishes						
	Section B72-4380 : Miscellaneous Fittings & Furniture						
	Total to B72 GS Building Summary						
	Section B72-4110 : Earthwork						
	Excavation						
1	Normal Excavation	m ³	7				
2	Excavation in Rock	m ³	2				
	Filling						
3	Backfilling to excavations	m ³	8				
	Filling/Compaction						
4	Gravel bed; 50mm thick	m ²	33				
5	Gravel bed; 50mm thick to external sidewalk (29/MD)	m ²	106				
6	Polyethylene waterproofing membrane	m ²	28				
	Total to Series Summary						
	Section B72-4120 : Termite Control						
1	Soil treatment	m ²	135				
	Total to Series Summary						
	Section B72-4220 : Concrete Works						
	Plain Concrete Class B3 in:						
1	Blinding concrete; 50mm thick	m ³	2				
2	Blinding layer; 50 mm thick to external sidewalk (29/MD)	m ³	6				
	Reinforced Concrete Class B1 in:						
3	Column foundations	m ³	2				
4	Columns	m ³	3				

Subcomponent-4-7: Navais Buildings

B72: GS Building

Section B72-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
5	Beams	m ³	3				
6	Suspended slabs	m ³	3				
7	Parapet	m ³	3				
Reinforced Concrete Class B2 in:							
8	Ground floor slab	m ³	4				
9	Base slab to external sidewalk (29/MD)	m ³	11				
Formwork							
Class F1 Formwork in:							
10	Column foundations	m ²	8				
11	Columns	m ²	29				
12	Beams	m ²	30				
13	Suspended slabs	m ²	14				
14	Walls	m ²	27				
15	Ground slab	m ²	3				
Class F3 Formwork in:							
16	Suspended slabs	m ²	16				
Reinforcement							
Reinforcement bars - (grade 40 = 276 N/m²)							
17	10mm ~ 12mm	Kg	842				
Reinforcement bars - (grade 60 = 415 N/m²)							
18	10mm ~ 12mm	Kg	512				
Total to Series Summary							
Section B72-4310 : Blockwork							
Hollow concrete block							
1	Wall; 150mm thick	m ²	67				
Reinforced Concrete Class B2 in Lintels and Stiffeners							
2	Lintel beam above opening; 150 x 200mm including formwork and reinforcement	m	7				
3	Stiffener beam; 150 x 300mm including formwork and reinforcement	m	18				
4	Stiffener column; 150 x 300mm including formwork and reinforcement	m	14				
Total to Series Summary							
Section B72-4320 : Waterproofing							
Waterproofing Membrane							
Built-up Bitumen Felt Water Proofing System; WP-1							
1	Waterproofing System with insulation applied to surface (1/RD)	m ²	28				

Subcomponent-4-7: Navais Buildings

B72: GS Building

Section B72-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
2	Waterproofing System applied to parapet wall (1/RD)	m ²	6				
3	50mm Thick protection concrete with 4mm diameter at 100mm welded wire mesh in steel trowel finish (1/RD)	m ²	28				
4	25mm Wide contraction gap w/ sealant in protection concrete (1/RD)	m	32				
5	350mm wide steel trowel finish roof ditch with metal lath	m	5				
Total to Series Summary							
Section B72-4340 : Windows/Doors							
<u>WOOD DOOR SETS ; flush type as shown on door & window schedule drawing : including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling</u>							
1	1/WD 900 x 2100 mm w/ louver	No.	1				
<u>STEEL DOOR SETS ; flush type as shown on door & window schedule drawing : including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling</u>							
2	1/SD 1400 x 2400 mm w/ louver	No.	1				
3	2/SD 900 x 2100 mm	No.	1				
4	3/SD 900 x 2400 mm w/ louver	No.	1				
Total to Series Summary							
Section B72-4350 : Metalworks							
1	Roof drain outlet 100 mm diameter. (10/RD)	No.	2				
2	Trench cover seat, 4.5mm thick checkered steel plate w/ 40 x 40 x 4.5mm thick steel angle frame (31/MD)	m ²	2				
3	Trench cover seat, 50 x 50 x 4mm thick steel angle w/ 10mm diameter dowel bar at 500mm c.c, including edging frame, 25 x 6mm thick SUS 304 flat bar. (31/MD)	m	12				
Total to Series Summary							
Section B72-4370 : Finishes							
<u>In-situ Internal Finishes</u>							
1	Cement render to floor; 50mm thick to receive damp, proof paint	m ²	13				
2	Cement render to floor; 38mm thick, to receive vinyl tiles	m ²	15				
3	Cement render to wall; 20mm thick to receive paint	m ²	110				
<u>External Finishes</u>							

Subcomponent-4-7: Navais Buildings
B72: GS Building
Section B72-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
4	Cement render to external wall; 20mm thick to receive paint	m ²	102				
5	Cement render to sidewalk 30mm thick (29/MD)	m ²	59				
Flexible Tile/Sheet							
6	300 x 300 x 2mm Thick anti-static vinyl tiles to floors (F-6)	m ²	15				
7	Polyvinyl soft tile to skirting 100mm high x 2mm thick (S-4)	m	17				
Suspended Ceilings and Bulkheads including supports and suspension system							
8	600 x 600 x 15mm Thick acoustic rockwool ceiling system (C-1)	m ²	18				
Painting/Clear Finishing							
Synthetic resin emulsion paint (P-1) to:							
9	Cement rendered wall (W-3); 30mm thick	m ²	110				
Synthetic resin mixed paint type (P-2) to:							
10	Wood Door	m ²	4				
Acrylic resin enamel paint (P-7)							
11	100mm Diameter uPvc downspout pipe	m	7				
Synthetic resin mixed paint type B (P-3) to:							
12	Steel doors	m ²	15				
13	Trench cover	m ²	4				
Synthetic resin emulsion multi-layer coating (P-4) to:							
14	Cement rendered external walls	m ²	102				
Epoxy resin floor paint (P-6) to:							
15	Cement rendered floors (F-8)	m ²	19				
Total to Series Summary							

Subcomponent-4-7: Navaid's Buildings

B72: GS Building

Section B72-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section B72-5000 Series: Mechanical Works</p> <p>Section B72-5100 : Sanitary and Plumbing</p> <p>Section B72-5200 : Ventilation and Air Condition</p> <p>Section B72-5300 : Fire Protection</p> <p style="text-align: right;">Total to B72 GS Building Summary</p>						
	<p>Section 5100 : Sanitary and Plumbing</p> <p>Plumbing and Sanitary</p> <p>Storm Drain Galvanized carbon steel pipe, ASTM Sc-40 Incl, Hangers, Supports, Sleeves, Inserts and Accessories.</p> <p>1 100mm diameter m 8</p> <p>Under Ground Polyvinyl chloride pipe (VP) Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories.</p> <p>2 100mm diameter m 10</p> <p>Roof Drain</p> <p>3 100mm diameter No. 2</p> <p>4 Catch Basin No. 2</p> <p>5 Catch Basin Cover No. 2</p> <p style="text-align: right;">Total to Section Summary</p>						
	<p>Section 5200 : Ventilation and Air Conditioning</p> <p>Air Conditioning System</p> <p>Equipment</p> <p>Air Cooled Packaged Air Conditioner Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.</p> <p>1 Wall Mounted AC Unit No. 2 Cooling Capacity 7 kw</p> <p>Refrigerant pipes, copper pipes type "L" Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories.</p> <p>2 6.35 mm diameter m 16</p> <p>3 15.88 mm diameter m 16</p> <p>Thermal Insulation Closed cell elastomeric thermal insulation</p> <p>4 6.35 mm diameter (30 mm thick) m 16</p> <p>5 15.88 mm diameter (30 mm thick) m 16</p> <p>Pipe Fittings Filter Drier</p> <p>6 6.35 mm diameter No. 1</p>						

Subcomponent-4-7: Navaid Buildings

B72: GS Building

Section B72-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
7	Moisture Indicator 6.35 mm diameter	No.	1				
8	Condensate Drain Piping; PVC Pipes Accessories. 25 mm diameter (PVC-VP)	m	10				
9	Condensate Drain Insulation Thermal Insulation Closed cell elastomeric thermal insulation 25 mm diameter (20 mm thick)	m	10				
10	Aluminum Cladding Aluminum Sheet (Ga. # 28)	m ²	16				
11	Mechanical Ventilation System Equipment Exhaust Fans Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories. In-Line Axial Fan Direct Driven c/w Direct Driven Motor, Q= 170 lps	No.	1				
12	Wall Mounted Exhaust Fan, Q = 150 lps	No.	1				
13	Duct Works G.I sheets Incl, Hangers, Supports, Sleeves, Inserts and Accessories. 0.6 mm (Ga. # 24)	m ²	8				
14	0.8 mm (Ga. # 22)	m ²	16				
15	Exhaust Air Grilles (EA) 300 x 300 mm	No.	3				
16	Exhaust Air Louvers (EA) 500 x 400 mm	No.	1				
17	Volume Damper 200 x 200 mm	No.	3				
18	Backdraft Damper 300 x 200 mm	No.	1				
Total to Section Summary							
Section B72-5300 : Fire Protection							
1	Portable Fire Extinguisher ABC Type, 4.5 kg	No.	1				
2	CO ₂ Type, 9.0 Kg	No.	1				
3	CO ₂ Type, 23.0 Kg	No.	1				
4	Fire extinguisher bracket W/housing	No.	2				
Total to Section Summary							

Subcomponent-4-7: Navaid Buildings

B72: GS Building

Section B72-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B72-6000 Series : Electrical Works						
	Series Summary						
	Section B72-6100 : Power Feeder System						
	Section B72-6200 : Lighting And Receptacle						
	Section B72-6300 : Telephone and Data System						
	Section B72-6800 : Fire Detection And Alarm						
	Section B72-6900 : Lightning Protection and Grounding System						
	Total to B72 GS Building Summary						
	Section B72-6100: Power Feeder System						
	Power Feeder System						
1	LPPNE-GS	No.	1				
2	1C-4mm ² XLPE	m	40				
3	5.5mm ² TW	m	25				
4	200mm (W) cable ladder	m	10				
5	Spare parts	Sum	1				
	Total to Series Summary						
	Section B72-6200: Lighting And Receptacle System						
	Lighting Fixtures						
1	1 x 36W Fluorescent fixture, industrial type	No.	2				
2	1 x 36W Fluorescent fixture, batten type	No.	1				
3	4 x 18W Fluorescent fixture, louver type	No.	5				
4	1 x 18W PLC	No.	2				
	Wiring Devices & Receptacle						
5	Duplex convenience outlet	No.	9				
6	Two-gang switch	No.	2				
7	Three-gang switch	No.	1				
8	30AT, 100AF, 2P ECB	No.	2				
	Wires & Cables						
9	3.5mm ² THHN	m	420				
	Conduits						
10	15mm dia	m	130				
	Total to Series Summary						

Subcomponent-4-7: Navaid Buildings

B72: GS Building

Section B72-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Section B72-6300: Telephone and Data System</u>							
<u>Equipment / Devices</u>							
1	Telephone outlet with RJ11 Device	No	3				
2	Single Line Telephone	No.	1				
3	Terminal Board (TB-VOR)	No	1				
<u>Wires and Cables</u>							
4	4P-Cat5e UTP Cable (interconnection)	m	35				
<u>Conduits</u>							
5	15mm dia	m	4				
6	20mm dia	m	14				
Total to Series Summary							
<u>Section B72-6800: Fire Detection And Alarm</u>							
<u>Equipment / Devices</u>							
1	Smoke Detector (addressable)	No	4				
2	Fireman Alarm manual pull station	No	1				
3	Alarm bell	No	1				
4	Remote Annunciator Panel	No	1				
5	Fireman's Telephone Jack w/ Handset	No	1				
6	Fire Alarm Terminal Cabinet (FATC-GS)	No	1				
<u>Wires and Cables</u>							
7	1.25 mm ² TF Wires (interconnection)	m	10				
<u>Conduits</u>							
8	15 mm dia	m	30				
Total to Series Summary							
<u>Section B72-6900 : Grounding System</u>							
1	Grounding System	Sum	1				
Total to Series Summary							

Subcomponent-4-7: Nav aids Buildings

B73: VOR Building

Summary

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-4-7: (B7) Nav aids Buildings						
	B73: VOR Building Summary						
	Section B73-4000 Series: Architectural Works						
	Section B73-5000 Series: Mechanical Works						
	Section B73-6000 Series: Electrical Works						
	Total to Subcomponent Summary						

Subcomponent-4-7: Navajds Buildings
 B73: VOR Building
 Section B73-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Section B73-4000 series : Architectural Works						
	Section B73-4110 : Earthwork						
	Section B73-4120 : Termite Control						
	Section B73-4220 : Concrete Works						
	Section B73-4310 : Blockworks						
	Section B73-4320 : Waterproofing						
	Section B73-4340 : Windows/Doors						
	Section B73-4350 : Metalworks						
	Section B73-4370 : Finishes						
	Section B73-4380 : Miscellaneous Fittings & Furniture]						
	Total to B73 VOR Building Summary						
	Section B73-4110 : Earthwork						
	Excavation						
1	Normal Excavation	m ³	7				
2	Excavation in Rock	m ³	2				
	Filling						
3	Backfilling to excavations	m ³	8				
	Filling/Compaction						
4	Gravel bed; 50mm thick	m ²	56				
5	Gravel bed; 50mm think to external sidewalk (29/MD)	m ²	122				
6	Polyethylene waterproofing membrane	m ²	51				
	Total to Series Summary						
	Section B73-4120 : Termite Control						
1	Soil treatment	m ²	180				
	Total to Series Summary						
	Section B73-4220 : Concrete Works						
	Plain Concrete Class B3 in:						
1	Blinding concrete; 50mm thick	m ³	3				
2	Blinding layer; 50 mm thick to external sidewalk (29/MD)	m ³	6				
	Reinforced Concrete Class B1 in:						
3	Column foundations	m ³	2				
4	Columns	m ³	3				
5	Beams	m ³	4				

Subcomponent-4-7: Nav aids Buildings
B73: VOR Building
Section B73-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
6	Suspended slabs	m ³	6				
7	Walls	m ³	3				
Reinforced Concrete Class B2 in:							
8	Ground floor slab	m ³	8				
9	Base slab to external sidewalk (29/MD)	m ³	12				
Formwork							
Class F1 Formwork in:							
10	Column foundations	m ²	8				
11	Ground slab	m ²	4				
12	Columns	m ²	44				
13	Beams	m ²	29				
14	Suspended slabs	m ²	28				
15	Parapet	m ²	12				
Class F3 Formwork in:							
16	Suspended slabs	m ²	23				
Reinforcement							
Reinforcement bars - (grade 40 = 276 N/m²)							
17	10mm ~ 12mm	Kg	1160				
Reinforcement bars - (grade 60 = 415 N/m²)							
1	10mm ~ 12mm	Kg	777				
Total to Series Summary							
Section B73-4310 : Blockwork							
Hollow concrete block							
1	Wall; 150mm thick	m ²	66				
Reinforced Concrete Class B2 in Lintels and Stiffeners							
2	Lintel beam above opening; 150 x 200mm including formwork and reinforcement	m	5				
3	Stiffener beam; 150 x 300mm including formwork and reinforcement	m	17				
4	Stiffener column; 150 x 300mm including formwork and reinforcement	m	17				
Total to Series Summary							
Section B73-4320 : Waterproofing							
Waterproofing Membrane							
Built-up Bitumen Felt Water Proofing System; WP-1							
1	Waterproofing System with insulation applied to surface (1/RD)	m ²	51				

Subcomponent-4-7: Navais Buildings

B73: VOR Building

Section B73-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
2	Waterproofing System applied to parapet wall (1/RD)	m ²	9				
3	50mm Thick protection concrete with 4mm diameter at 100mm welded wire mesh in steel trowel finish (1/RD)	m ²	51				
4	25mm Wide contraction gap w/ sealant in protection concrete (1/RD)	m	43				
5	350mm wide steel trowel finish roof ditch with metal lath	m	13				
Total to Series Summary							
Section B73-4340 : Windows/Doors							
<u>WOOD DOOR SETS ; flush type as shown on door & window schedule drawing : including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling</u>							
1	1/WD 900 x 2100 mm w/ louver	No.	1				
<u>STEEL DOOR SETS ; flush type as shown on door & window schedule drawing : including ironmongery, louvers, openings, glazing, thresholds, frame set and fixing lug, mortar bedding/filling</u>							
2	1/SD 1400 x 2400 mm w/ louver	No.	2				
3	2/SD 1400 x 2100 mm	No.	1				
Total to Series Summary							
Section B73-4350 : Metalworks							
1	Roof drain outlet 100 mm diameter. (10/RD)	No.	4				
2	Trench cover, 4.5mm thick checkered steel plate w/ 40 x 40 x 4.5mm thick steel angle frame (31/MD)	m ²	11				
3	Trench cover seat, 50 x 50 x 4mm thick steel angle w/ 10mm diameter dowel bar at 500mm c.c, including edging frame, 25 x 6mm thick SUS 304 flat bar. (31/MD)	m	25				
Total to Series Summary							
Section B73-4370 : Finishes							
<u>In-situ Internal Finishes</u>							
1	Cement render to floor; 50mm thick to receive damp, proof paint	m ²	19				
2	Cement render to floor; 38mm thick, to receive vinyl tiles	m ²	32				
3	Cement render to wall; 20mm thick to receive paint	m ²	152				

Subcomponent-4-7: Navais Buildings

B73: VOR Building

Section B73-4000: Architectural Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	External Finishes						
4	Cement render to external wall; 20mm thick to receive paint	m ²	100				
5	Cement render to sidewalk 30mm thick (29/MD)	m ²	122				
	Flexible Tile/Sheet						
6	300 x 300 x 2mm Thick anti-static vinyl tiles to floors (F-6)	m ²	32				
7	Polyvinyl soft tile to skirting 100mm high x 2mm thick (S-4)	m	25				
	Suspended Ceilings and Bulkheads including supports and suspension system						
8	600 x 600 x 15mm Thick acoustic rockwool ceiling system (C-1)	m ²	16				
	Painting/Clear Finishing						
	Synthetic resin emulsion paint (P-1) to:						
9	Cement rendered wall (W-3); 30mm thick	m ²	152				
	Synthetic resin mixed paint (P-2) to:						
10	Wood Door	m ²	4				
	Acrylic resin enamel paint (P7) to;						
11	100 mm diameter uPvc downspout pipe	m	7				
12	Steel doors	m ²	19				
13	Trench cover	m ²	3				
	Synthetic resin emulsion multi-layer coating (P-4) to:						
14	Fair faced concrete external walls	m ²	99				
	Epoxy resin floor paint (P-6) to:						
15	Cement rendered floors (F-8)	m ²	19				
	Total to Series Summary						

Subcomponent-4-7: Navais Buildings

B73: VOR Building

Section B73-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section B73-5000 : Mechanical Works</p> <p>Section B73-5100 : Sanitary and Plumbing</p> <p>Section B73-5200 : Ventilation and Air Condition</p> <p>Section B73-5300 : Fire Protection</p> <p style="text-align: center;">Total to B73 VOR Building Summary</p>						
	<p>Section 5100 : Sanitary and Plumbing</p> <p>Plumbing and Sanitary</p> <p>Storm Drain Galvanized carbon steel pipe, ASTM Sch-40 Incl, Hangers, Supports, Sleeves, Inserts and Accessories.</p> <p>1 100mm diameter m 8</p> <p>Under Ground Polyvinyl chloride pipe (VP) Incl, Hangers, Supports, Sleeves, Inserts, Excavation, Back filling, Sand Bedding and Accessories.</p> <p>2 100mm diameter m 10</p> <p>Roof Drain</p> <p>3 100mm diameter No. 2</p> <p>4 Catch Basin No. 2</p> <p>5 Catch Basin Cover No. 2</p> <p style="text-align: center;">Total to Section Summary</p>						
	<p>Section 5200 : Ventilation and Air Conditioning</p> <p>Air Conditioning System</p> <p>Equipment</p> <p>Air Cooled Packaged Air Conditioner Incl, Vibration Isolator, Hangers, Supports, Inserts and Accessories.</p> <p>1 Wall Mounted AC Unit No. 2 Cooling Capacity 7 kw</p> <p>Refrigerant pipes, copper pipes type "L" Incl, Fittings, Hangers, Supports, Sleeves, Inserts and Accessories.</p> <p>2 6.35 mm diameter m 16</p> <p>3 15.88 mm diameter m 16</p> <p>Thermal Insulation Closed cell elastomeric thermal insulation</p> <p>4 6.35 mm diameter (30 mm thick) m 16</p> <p>5 15.88 mm diameter (30 mm thick) m 16</p> <p>Pipe Fittings Filter Drier</p> <p>6 6.35 mm diameter No. 1</p>						

Subcomponent-4-7: Nav aids Buildings

B73: VOR Building

Section B73-5000: Mechanical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
7	Moisture Indicator 6.35 mm diameter	No.	1				
8	Condensate Drain Piping: PVC Pipes Incl. Fittings, Hangers, Supports, Sleeves, Inserts and Accessories. 25 mm diameter (PVC-VP)	m	10				
9	Condensate Drain Insulation Thermal Insulation Closed cell elastomeric thermal insulation 25 mm diameter (20mm)	m	10				
10	Aluminum Cladding Aluminum Sheet (Ga. # 28)	m ²	16				
	Mechanical Ventilation System						
	Equipment						
	Exhaust Fans Incl. Vibration Isolator, Hangers, Supports, Inserts and Accessories.						
11	In-Line Axial Fan Direct Driven c/w Direct Driven Motor, Q= 170 lps	No.	1				
12	Wall Mounted Exhaust Fan, Q = 150 lps	No.	1				
	Duct Works						
	G.I sheets Incl. Hangers, Supports, Sleeves, Inserts and Accessories.						
13	0.6 mm (Ga. # 24)	m ²	8				
14	0.8 mm (Ga. # 22)	m ²	16				
15	Exhaust Air Grilles (EA) 300 x 300 mm	No.	3				
16	Exhaust Air Louvers (EA) 500 x 400 mm	No.	1				
17	Volume Damper 200 x 200 mm	No.	3				
18	Backdraft Damper 300 x 200 mm	No.	1				
	Total to Section Summary						
	Section 5300 : Fire Protection						
	Portable Fire Extinguisher						
1	ABC Type, 4.5 kg	No.	1				
2	CO ₂ Type, 9.0 Kg	No.	1				
3	CO ₂ Type, 23.0 Kg	No.	1				
4	Fire extinguisher bracket W/housing	No.	2				
	Total to Section Summary						

Subcomponent-4-7: Nav aids Buildings

B73: VOR Building

Section B73-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Section B73-6000 series : Electrical Works</p> <p style="text-align: center;">Series Summary</p> <p>Section B73-6100 : Power Feeder System</p> <p>Section B73-6200 : Lighting And Receptacle</p> <p>Section B73-6300 : Telephone and Data System</p> <p>Section B73-6800 : Fire Detection And Alarm</p> <p>Section B73-6900 : Lightning Protection and Grounding System</p> <p style="text-align: center;">Total to B73 VOR Building Summary</p>						
	<p><u>Section B73-6100: Power Feeder System</u></p> <p><u>Power Feeder System</u></p> <p>1 LPPNE-VOR No. 1</p> <p>2 1C-6mm² XLPE No. 15</p> <p>3 1C-4mm² XLPE m 25</p> <p>4 5.5mm² TW m 25</p> <p>5 200mm (W) cable ladder m 10</p> <p style="text-align: center;">Total to Series Summary</p>						
	<p><u>Section B73-6200: Lighting And Receptacle System</u></p> <p><u>Lighting Fixtures</u></p> <p>1 1 x 36W Fluorescent fixture, industrial type No. 2</p> <p>2 1 x 36W Fluorescent fixture, batten type No. 1</p> <p>3 4 x 18W Fluorescent fixture, louver type No. 6</p> <p>4 1 x 18W PLC No. 2</p> <p><u>Wiring Devices & Receptacle</u></p> <p>5 Duplex convenience outlet No. 9</p> <p>6 Two-gang switch No. 2</p> <p>7 Three-gang switch No. 1</p> <p>8 30AT, 100AF, 2P ECB No. 2</p> <p><u>Wires & Cables</u></p> <p>9 3.5mm² THHN m 500</p> <p><u>Conduits</u></p> <p>10 15mm dia m 150</p>						

Subcomponent-4-7: Nav aids Buildings

B73: VOR Building

Section B73-6000: Electrical Works

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Total to Series Summary							
<u>Section B73-6300: Telephone and Data System</u>							
<u>Equipment / Devices</u>							
1	Telephone outlet with RJ11 Device	No	3				
2	Single Line Telephone	No.	1				
3	Terminal Board (TB-VOR)	No	1				
<u>Wires and Cables</u>							
4	4P-Cat5e UTP Cable (interconnection)	m	35				
<u>Conduits</u>							
5	15mm dia	m	4				
6	20mm dia	m	15				
Total to Series Summary							
<u>Section B73-6800: Fire Detection And Alarm</u>							
<u>Equipment / Devices</u>							
1	Smoke Detector (addressable)	No	4				
2	Fireman Alarm manual pull station	No	1				
3	Alarm bell	No	1				
4	Fire Alarm Control Panel(FACP-3) (1-loop)	No	1				
<u>Wires and Cables</u>							
5	1.25 mm ² TF Wires (interconnection)	m	15				
<u>Conduits</u>							
6	15 mm dia	m	35				
Total to Series Summary							
<u>Section B73-6900 : Grounding System</u>							
1	Grounding System	Sum	1				
Total to Series Summary							

BILL OF QUANTITIES

OF

COMPONENT-5:

N: AIR NAVIGATION FACILITIES

**Component-5: (N) Air Navigation Facilities
Summary**

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Component-5: Air Navigation Facilities (N) Subcomponent Summary Subcomponent-5-0 : (N0) General Subcomponent-5-1 : (N1) ILS Subcomponent-5-2 : (N2) VOR/DME Subcomponent-5-3 : (N3) ATS and Telecommunications Subcomponent-5-4 : (N4) Meteorological Observation System Total to Component-5						

Component-5: (N) Air Navigation Facilities

Section N-8050: General Requirements

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-5-0 : (N0) General						
	Section Summary						
	Section N-8050 : General						
	Total to Subcomponent-5 Summary						
	<u>Section N-8050 : General</u>						
1	Tools and appliances for ILS	Sum	1				
2	Tools and appliances for VOR/DME	Sum	1				
3	Tools and appliances for ATS	Sum	1				
4	Tools and appliances for Meteorological	Sum	1				
5	Measuring equipment for ILS	Sum	1				
6	Measuring equipment for VOR/DME	Sum	1				
7	Measuring equipment for ATS	Sum	1				
8	Measuring equipment for Meteorological	Sum	1				
9	Spare parts for ILS	Sum	1				
10	Spare parts for VOR/DME	Sum	1				
11	Spare parts for ATS	Sum	1				
12	Spare parts for Meteorological	Sum	1				
13	Training of personnel for ILS	Sum	1				
14	Training of personnel for VOR/DME	Sum	1				
15	Training of personnel for ATS	Sum	1				
16	Training of personnel for MET	Sum	1				
	Total to Section Summary						

Component-5: (N) Air Navigation Facilities

Section N-8100: ILS

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Subcomponent-5-1 : (N1) ILS</p> <p style="text-align: center;">Section Summary</p> <p>Section N-8110 : Localizer</p> <p>Section N-8120 : Glide Slope</p> <p>Section N-8130 : T-DME</p> <p>Section N-8140 : Remote Control and Monitoring System</p> <p style="text-align: center;">Total to Subcomponent-5-1</p>						
	<p><u>Section N-8110 : Localizer</u></p> <p><u>Equipment</u></p> <p>1 Dual transmitter system (2f type) Sum 1</p> <p>2 D.C. power supply system Sum (Included in transmitter system)</p> <p>3 Antenna system with lightning protection Sum 1</p> <p>4 Cable, Duct, Terminal Board, Power Distribution Board, Handholes and Grounding system Sum 1</p> <p>5 Communication Cable from CTO EQ room Sum 1</p> <p>6 Installation Works Sum 1</p> <p style="text-align: center;">Total to Section Summary</p>						
	<p><u>Section N-8120 : Glide Slope</u></p> <p><u>Equipment</u></p> <p>1 Dual transmitter system (2f type) Sum 1</p> <p>2 D.C. power supply system Sum (Included in transmitter system)</p> <p>3 Antenna system with lightning protection Sum 1</p> <p>4 Monitor Antenna Ground Mat Sum 1</p> <p>5 Cable, Duct, Terminal Board, Power Distribution Board, Handholes and Grounding system Sum 1</p> <p>6 Communication Cable from CTO EQ room Sum 1</p> <p>7 Installation Works Sum 1</p> <p style="text-align: center;">Total to Section Summary</p>						
	<p><u>Section N-8130 : T-DME</u></p> <p><u>Equipment</u></p> <p>1 Dual Transponder System Sum 1</p>						

Component-5: (N) Air Navigation Facilities

Section N-8100: ILS

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
2	Antenna system	Sum	1				
3	Cable, Duct, Handholes and Grounding system	Sum	1				
4	Installation Works	Sum	1				
Total to Section Summary							
<u>Section N-8140 : Remote Control and Monitoring System</u>							
<u>Equipment</u>							
	Remote Control and Monitoring Unit	Sum	1				
	Navaid's Monitor Display Unit	Sum	1				
	Cables among Equipment and Terminal board	Sum	1				
	Calibration Receiver	Sum	1				
5	Installation Works	Sum	1				
Total to Section Summary							

Component-5: (N) Air Navigation Facilities

Section N-8200: VOR/DME

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Subcomponent-5-2 : (N2) VOR/DME</p> <p>Section Summary</p> <p>Section N-8210 : DSB Type Doppler VOR</p> <p>Section N-8220 : DME</p> <p>Total to Subcomponent-5-2</p>						
	<p><u>Section N-8210 : DSB Type Doppler VOR</u></p> <p><u>Equipment</u></p> <p>1 Dual transmitting system with antenna and lightning protection Sum 1</p> <p>2 Cable, Duct, Terminal Board, Power Distribution Board, Handholes and Grounding system Sum 1</p> <p>3 Communication Cable from CTO EQ room Sum 1</p> <p>4 Counterpoise Sum 1</p> <p>5 Theodolite pad Sum (Included in Counterpoise)</p> <p>6 Grounding system Sum (Included in Counterpoise)</p> <p>Total to Section Summary</p>						
	<p><u>Section N-8220 : DME</u></p> <p><u>Equipment</u></p> <p>7 Dual transponder system Sum 1</p> <p>8 DC power supply with battery and charger Sum (Included in transponder system)</p> <p>9 VOR/DME local control and status monitor Sum (Included in transponder system)</p> <p>10 VOR/DME remote control and status monitor (Desktop type PC) Sum (Included in ILS Monitoring system)</p> <p>11 Operational status monitor (Desktop type PC) Sum 1</p> <p>12 Audio alarm box Sum 1</p> <p>13 Cable and Duct Sum 1</p> <p>14 Theodolite pad Sum (Included in Counterpoise)</p> <p>15 Installation Works Sum 1</p> <p>Total to Section Summary</p>						

Component-5: (N) Air Navigation Facilities
Section N-8300: ATS and Telecommunications

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	<p>Subcomponent-5-3 : (N3) ATS and Telecommunications</p> <p>Section Summary</p> <p>Section N-8300: ATS and Telecommunication</p> <p>Total to Subcomponent-5-3</p>						
	<p><u>Section N-8300: ATS and Telecommunication</u></p> <p><u>ATC Communication Control System Equipment</u></p> <p><u>Communication Control System Console</u></p> <p>1 Approach Control Console Sum 1</p> <p>2 Aerodrome Control Console Sum 1</p> <p>3 FD aux Control Console Sum 1</p> <p>4 SUPV Control Console Sum 1</p> <p><u>Voice Communication Control Unit</u></p> <p>5 Communication Control Unit Sum 1</p> <p>6 Master Clock System Sum 1</p> <p>7 Slave Digital Clock for ATS Sum (Included in Item No.6)</p> <p>8 Slave Digital Clock for Building works Sum (Included in Item No.6)</p> <p>9 Slave Analog Clock for Building works Sum (Included in Item No.6)</p> <p><u>Voice Recorder</u></p> <p>10 Voice recorder and reproducer Sum 1</p> <p><u>A/G Fixed Communication System Equipment</u></p> <p><u>VHF Air/Ground Equipment</u></p> <p><u>TX</u></p> <p>11 VHF Transmitter (50W dual set) Sum 1</p> <p>12 VHF Wide Band antenna Sum 1</p> <p><u>RX</u></p> <p>13 VHF Receiver (dual set) Sum 1</p> <p>14 VHF Wide Band antenna Sum 1</p> <p>15 TX and RX rack w/ antenna changeover circuits Sum 1</p> <p><u>Antenna Tower</u></p>						

Component-5: (N) Air Navigation Facilities
Section N-8300: ATS and Telecommunications

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
16	TX Antenna pole with lightning protection	Sum	1				
17	RX Antenna pole with lightning protection	Sum	1				
18	Antenna feeder for TX	Sum	1				
19	Antenna feeder for RX	Sum	1				
20	A/G TRCV with antenna	Sum	1				
21	Cable and antenna feeder	Sum	1				
	<u>VHF FM Transceiver for SMC</u>						
22	FM TRCV with charger and antenna	Sum	1				
23	Cable and antenna feeder	Sum	1				
	<u>VHF A/G transceiver for Fire Engine</u>						
24	A/G TRCV with antenna (mobile)	Sum	1				
	<u>VHF FM Handie Talkie for Fire Comm.</u>						
25	FM handie talkie with battery charger	Sum	1				
	<u>HF Comm.</u>						
26	HF Transceiver	Sum	1				
27	HF SSB TRCV rack with antenna Change-over circuits	Sum	1				
28	Antenna w/ antenna pole & antenna feeder	Sum	1				
29	Remote Control Unit (VFR Console built-in type)	Sum	1				
	<u>AG Monitor Receiver</u>						
30	VHF multi-band receiver	Sum	1				
	<u>ATS Intercom System</u>						
31	Maintenance intercom PABX	Sum	1				
32	Telephone set	Sum	1				
	<u>Other Items</u>						
33	Signaling lamp (Light Gun)	Sum	1				
34	Siren	Sum	1				
35	Binoculars	Sum	1				
	<u>Power Distribution Board (PDB)</u>						
36	EQ Room in CTO	Sum	1				

Component-5: (N) Air Navigation Facilities
Section N-8300: ATS and Telecommunications

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
37	VFR Room	Sum	1				
38	FOBS Room in CTO	Sum	1				
39	FOBS Remote Room in PTB	Sum	1				
40	Observation Room in FSM	Sum	1				
	<u>TB</u>						
41	Main Distribution Frame in CTO	Sum	1				
42	VFR Room	Sum	1				
43	FOBS Room in CTO	Sum	1				
44	FSS Room in CTO	Sum	1				
45	FOBS Remote Room in PTB	Sum	1				
46	Observation Room in FSM	Sum	1				
	<u>Cable Rack</u>		1				
47	W800 mm wide	Sum	1				
48	W500 mm wide	Sum	1				
49	W400 mm wide	Sum	1				
50	W250 mm wide	Sum	1				
51	W250 mm wide duct	Sum	1				
	<u>UPS</u>		1				
52	20 KVA UPS, 3 Phase, 230 V for CTO	Sum	1				
53	1.5 KVA UPS, 3 Phase, 230 V for FSM	Sum	1				
	<u>Cable</u>						
54	Power Cable	Sum	1				
55	Communication Cable	Sum	1				
	Total to Section Summary						

Component-5: (N) Air Navigation Facilities
Section N-8400: Meteorological Observation System

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-5-4 : (N4) Meteorological Observation System						
	Section Summary						
	Section N-8400: Meteorological Observation System						
	Total to Subcomponent-5-4						
	<u>Section N-8400: Meteorological Observation System</u>						
	<u>MET Observation Field Equipment</u>						
1	Transmissometer and RVR converter	Sum	1				
2	Anemometer and wind vane (RWY 21)	Sum	1				
3	Anemometer and wind vane (RWY 03)	Sum	1				
4	Temperature probe/Dew Point temperature probe	Sum	1				
5	Ceilometer	Sum	1				
6	Cables, cable ducts & handholes (RWY21)	Sum	1				
7	Cables, cable ducts & handholes (RWY03)	Sum	1				
8	Cable ducts & handholes for Ceilometer	Sum	1				
9	Power distribution box and terminal box	Sum	1				
	<u>EQ Room</u>						
10	Weather data processor and distribution system	Sum	1				
	<u>FOBS Briefing Room at PTB</u>						
11	Weather data display unit	Sum	1				
12	WS/WD display indicator	Sum	1				
	<u>Cable</u>						
13	Power cable	Sum	1				
14	Communication cable	Sum	1				
	Total to Section Summary						

BILL OF QUANTITIES

OF

COMPONENT-6:

G: AERONAUTICAL GROUND

**Component-6: (L) Aeronautical Ground Lighting Works
Component Summary**

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Component-6: Aeronautical Ground Lighting (L) Component Summary Subcomponent-6-0: (L0) General Subcomponent-6-1: (L1) Approach Lighting System Subcomponent-6-2: (L2) Precision Approach Path Indicator Subcomponent-6-3: (L3) Runway Lighting System Subcomponent-6-4: (L4) Taxiway Lighting System Subcomponent-6-5: (L5) Other Lighting Subcomponent-6-6: (L6) Apron Floodlighting Subcomponent-6-7: (L7) Underground Cable Ducts Subcomponent-6-8: (L8) Control and Monitoring System Total to Work Summary						

Component-6: (L) Aeronautical Ground Lighting Works

Subcomponent-6-0: (L0) General

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-6-0: (L0) General						
1	Tools and appliances	Sum	1				
2	Spare parts	Sum	1				
3	Factory Training	Sum	1				
4	Factory Test	Sum	1				
5	Site Training	Sum	1				
6	Site acceptance test	Sum	1				
7	Flight check	Sum	1				
	Total to Subcomponent Summary						

Component-6: (L) Aeronautical Ground Lighting Works

Subcomponent-6-1: (L1) Approach Lighting System

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Subcomponent-6-1: (L1) Approach Lighting System</u>							
<u>PALS (Rwv 21)</u>							
1	Light Fittings, (200 W) elevated type	No.	161				
2	Light Fittings, (105W x 3) surface type	No.	5				
3	Shallow base box for surface light including foundation	No.	5				
4	Isolating transformer, 200W, 6.6A/6.6A, 5kV, 60Hz	No.	161				
5	Isolating transformer, 300W, 6.6A/6.6A, 5kV, 60Hz	No.	5				
6	Primary cable, 5kV XLPE/PVC, 8mm ² - 1C	m	12,222				
7	Secondary cable, 600V 2PNCT 4.0mm ² -2C	m	513				
8	Connector kit, 54B-E4-E4 with static lock	No.	166				
9	Secondary connector kit 90P	No.	166				
10	Secondary connector kit 90R for Inset Type	No.	5				
11	Crimp type terminal lug 14mm	No.	498				
12	Splicing kit, #82-A1	No.	16				
13	Rubber tapes, #23, 3M Brand	No.	55				
14	PVC electrical tape #33, 3M Brand	No.	66				
15	32mm RSC conduit with Concrete Encasement & accessories	m	90				
16	FEP65 with accessories for Circuit no.1,2	m	2,119				
17	Aluminum conduit, complete with frangible coupling	No.	161				
18	2" Frangible collar	No.	5				
19	Concrete foundation for five (5) approach light	No.	29				
20	Concrete foundation for five (8) approach light	No.	2				
<u>SALS (Rwv 03)</u>							
21	Light Fittings, (200 W) elevated type	No.	51				
22	Isolating transformer, 200W, 6.6A/6.6A, 5kV, 60Hz	No.	51				
23	Primary cable, 5kV XLPE/PVC, 8mm ² - 1C	m	3,230				
24	Secondary cable, 600V 2PNCT 4.0mm ² -2C	m	153				
25	Connector kit, 54B-E4-E4 with static lock	No.	51				
26	Secondary connector kit 90P	No.	51				
27	Crimp type terminal lug 14mm	No.	153				
28	Splicing kit, #82-A1	No.	4				
29	Rubber tapes, #23, 3M Brand	No.	17				

Component-6: (L) Aeronautical Ground Lighting Works
Subcomponent-6-1: (L1) Approach Lighting System

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
30	PVC electrical tape #33, 3M Brand	No.	20				
31	FEP65 with accessories for Circuit no.1,2	m	515				
32	Aluminum conduit, complete with frangible coupling	No.	51				
33	Concrete foundation for five (5) approach light	No.	7				
34	Concrete foundation for five (8) approach light	No.	2				
Total to Subcomponent Summary							

Component-6: (L) Aeronautical Ground Lighting Works
Subcomponent-6-2: (L2) Precision Approach Path Indicator

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Subcomponent-6-2: (L2) Precision Approach Path Indicator							
<u>PAPI</u>							
1	Light unit 3 x 200W with accessories	Sum	8				
2	Isolating transformer, 200W, 6.6A/6.6A, 5kV, 60Hz	No.	24				
3	Connector kit, 54B-E4-E4 with static lock	No.	8				
4	Concrete foundation	No.	8				
5	Primary cable, 5kV XLPE/PVC, 8mm ² - 1C	m	4,864				
6	Secondary connector kit 90P	No.	24				
7	Crimp type terminal lug 14mm	No.	72				
8	Splicing kit, #82-A1	Set	6				
9	Rubber tapes, #23, 3M Brand	No.	8				
10	PVC electrical tape #33, 3M Brand	No.	10				
11	FEP65 with accessories	m	122				
12	Concrete pavement	Lot	2				
13	Secondary cable, 600V 2PNCT 4.0mm ² -2C	m	72				
Total to Subcomponent Summary							

Component-6: (L) Aeronautical Ground Lighting Works

Subcomponent-6-3: (L3) Runway Lighting System

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Subcomponent-6-3: (L3) Runway Lighting System</u>							
<u>Rwy Edge Light</u>							
1	Light fitting, 150 W (W-W)	No.	24				
2	Light fitting, 150 W (W-Y)	No.	35				
3	Surface light, 100 W x 2 (W-W)	No.	2				
4	Surface light, 100 W x 2 (W-Y)	No.	4				
5	Light fitting (TP) (Blue) 100 W	No.	12				
6	Shallow base box for runway surface light including foundation	No.	7				
7	Isolating transformer, 200W, 6.6A/6.6A, 5kV, 60Hz	No.	6				
8	Isolating transformer, 150W, 6.6A/6.6A, 5kV, 60Hz	No.	59				
9	Isolating transformer, 100W, 6.6A/6.6A, 5kV, 60Hz	No.	12				
10	Primary cable, 5kV XLPE/PVC, 8mm ² - 1C	m	9,761				
11	Secondary cable, 600V 2PNCT 4.0mm ² -2C (For inset)	m	179				
12	Connector kit, 54B-E4-E4 with static lock	No.	77				
13	Secondary connector kit 90P (For inset)	No.	6				
14	Secondary connector kit 90R (For inset)	No.	6				
15	Crimp type terminal lug 14mm	No.	231				
16	Rubber tapes, #23, 3M Brand	No.	26				
17	PVC electrical tape #33, 3M Brand	No.	31				
18	FEP65 with Concrete Encasement & accessories for Circuit No.1	m	4,360				
19	FEP65 with Concrete Encasement & accessories for Circuit No.2	m	4,360				
20	32mm RSC conduit with Concrete Encasement & accessories	m	240				
21	Concrete foundation for REDL, TPEL, STWL	No.	70				
<u>Rwy Threshold, Wing Bar and End Lights</u>							
22	Light fittings (Green) (200 W), elevated type (RTHL)	No.	34				
23	Light fittings (Red) (100 W), elevated type (RENL)	No.	12				
24	Light fittings for wing bar (Green) (200 W), elevated type (WBAR)	No.	10				
25	Light fittings (Red) (100 W), elevated type (STWL)	No.	10				
26	Isolating transformer, 200W, 6.6A/6.6A, 5kV, 60Hz	No.	44				
27	Isolating transformer, 100W, 6.6A/6.6A, 5kV, 60Hz	No.	22				
28	Connector kit, 54B-E4-E4 with static lock	No.	66				
29	Crimp type terminal lug 14mm	No.	66				

Component-6: (L) Aeronautical Ground Lighting Works
Subcomponent-6-3: (L3) Runway Lighting System

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
30	Rubber tapes, #23, 3M Brand	No.	22				
31	PVC electrical tape #33, 3M Brand	No.	26				
32	2- 65mm RSC conduit with accessories	m	126				
33	Concrete foundation for RTHL, RENL and WBAR	No.	66				
	Total to Subcomponent Summary						

Component-6: (L) Aeronautical Ground Lighting Works
Subcomponent-6-4: (L4) Taxiway Lighting System

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Subcomponent-6-4: (L4) Taxiway Lighting System</u>							
<u>TEDL</u>							
1	Light fitting (Blue) LED Type 7.5W	No.	77				
2	Isolating transformer, 10/15W, 6.6A/6.6A, 5kV	No.	77				
3	Primary cable, 5 kV XLPE/PVC, 8mm ² -1C	m	4,000				
4	Connector kit, 54B-E4-E4 with static lock	No.	77				
5	Crimp type terminal lug 14mm	No.	231				
6	Rubber tapes, #23, 3M Brand	No.	26				
7	PVC electrical tape #33, 3M Brand	No.	31				
8	FEP65 with Concrete Encasement & accessories	m	2,200				
9	Concrete foundation for TEDL	No.	77				
<u>TXGS</u>							
11	3-L Single sided (54W LED) with accessories	No.	6				
12	7-L Single sided (84W LED) with accessories	No.	4				
13	Isolating transformer, 65W, 6.6A/6.6A, 5kV	No.	6				
14	Isolating transformer, 100W, 6.6A/6.6A, 5kV	No.	4				
15	Connector kit, 54B-E4-E4 with static lock	No.	10				
16	Secondary connector kit 90P	No.	10				
17	Crimp type terminal lug 14mm	No.	30				
18	Rubber tapes, #23, 3M Brand	No.	3				
19	PVC electrical tape #33, 3M Brand	No.	4				
20	Concrete foundation for 3 letters	No.	6				
21	Concrete foundation for 7 letters	No.	4				
Total to Subcomponent Summary							

Component-6: (L) Aeronautical Ground Lighting Works

Subcomponent-6-5: (L5) Other Lighting

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
	Subcomponent-6-5: (L5) Other Lighting						
	<u>Aerodrome Beacon</u>						
1	Aerodrome Beacon with OB Light (LED Type)	No.	1				
2	Liquid tight adapter 15mm with S/S bushing 32mm x 15mm	No.	2				
3	Liquid tight flexible conduit 15mm	m	6				
4	Insulated bushing 36mm	No.	2				
5	36mm RSC conduit with accessories	m	15				
6	Cable 600V XLPE/PVC 8.0mm - 3C	m	140				
	<u>Wind Direction Indicator Lights</u>						
7	Wind Cone, Light Fittings (LED Type) with OB Light (LED Type)	No.	2				
8	Step-down dry transformer (single phase 1.5 kVA) with box	No.	2				
10	Step-up dry transformer (single phase 1.5 kVA)	No.	2				
11	Concrete foundation	No.	2				
12	Cable 600V XLPE/PVC 22mm - 2C	m	2,823				
13	FEP65 with accessories	m	125				
14	Concrete circular band 15 meter diameter	No.	2				
	Total to Subcomponent Summary						

Component-6: (L) Aeronautical Ground Lighting Works

Subcomponent-6-6: (L6) Apron Floodlighting

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Subcomponent-6-6: (L6) Apron Floodlighting</u>							
<u>Apron Floodlighting</u>							
1	660W NH Floodlights	No.	8				
2	1000W M Floodlights	No.	16				
3	25m High mast with Lowering gear and Foundation	No.	5				
4	Ballast Panel	No.	5				
5	600V XLPE/PVC 14mm ² x 3C	m	935				
6	600V XLPE/PVC 8mm ² x 3C	m	466				
7	600V XLPE/PVC 5.5mm ² x 3C	m	3,250				
9	PDB for APR N/E & N	No.	1				
10	5 - SGP65A with Concrete Encasement & accessories	m	122				
11	4 - SGP65A with Concrete Encasement & accessories	m	62				
12	3 - SGP65A with Concrete Encasement & accessories	m	62				
13	2 - SGP65A with Concrete Encasement & accessories	m	62				
Total to Subcomponent Summary							

Component-6: (L) Aeronautical Ground Lighting Works
Subcomponent-6-7: (L7) Underground Cable Ducts

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
<u>Subcomponent-6-7: (L7) Underground Cable Ducts</u>							
<u>Cable duct</u>							
1	10 - FEP100 with accessories	m	258				
2	7- FEP100 with accessories	m	70				
3	6 - FEP100 with accessories	m	121				
4	5 - FEP100 with accessories	m	1,042				
5	4 - FEP100 with accessories	m	1,093				
6	3 - FEP100 with accessories	m	3,084				
7	2 - FEP100 with accessories	m	768				
8	10 - SGP100A with Concrete Encasement & accessories	m	96				
9	7 - SGP100A with Concrete Encasement & accessories	m	70				
10	4 - SGP100A with Concrete Encasement & accessories	m	70				
11	3 - SGP100A with Concrete Encasement & accessories	m	160				
12	Manhole for MT	No.	54				
<u>Handhole and Grounding system</u>							
13	Handhole for lighting with accessories for PALS, RTH, REDL Surface, PAPI, APR, WDIL	No.	65				
14	Grounding System	No.	93				
15	Counterpoise Wire	m	15,667				
Total to Subcomponent Summary							

Component-6: (L) Aeronautical Ground Lighting Works
Subcomponent-6-8: (L8) Control and Monitoring System

Item No.	Description	Unit	Qty	Rate		Amount	
				Local Peso	Foreign Yen	Local Peso	Foreign Yen
Subcomponent-6-8: (L8) Control and Monitoring System							
Equipment							
1	CCR, 5 steps, 30kVA for PALS no.1, no.2 and Standby	No.	3				
2	CCR, 5 steps, 20kVA for SALS, REDL No.1, No.2 and Standby	No.	3				
3	CCR, 5 steps, 15 kVA for SALS	No.	1				
4	CCR, 5 steps, 10 kVA for TEDL and TGXS	No.	1				
5	CCR, 5 steps, 5 kVA for PAPI no.1, no.2 and Standby	No.	3				
6	Power Distribution Board (AGL-1, AGL-2)	No.	2				
7	Remote control monitoring system	No.	1				
8	UPS 3kVA for RCMS	Sum	1				
9	Cable for remote control system	Sum	1				
10	Cable 600V XLPE/PVC 95mm - 1C	m	75				
10	Cable 600V XLPE/PVC 70mm - 1C	m	30				
11	Cable 600V XLPE/PVC 16mm - 1C	m	90				
12	Cable 600V XLPE/PVC 60mm - 2C	m	60				
13	Cable 600V XLPE/PVC 22mm - 2C	m	60				
14	Cable 600V XLPE/PVC 14mm - 2C	m	20				
15	Cable 600V XLPE/PVC 5.5mm - 2C	m	80				
16	IV14mm ²	m	415				
17	IV8mm ²	m	30				
Total to Subcomponent Summary							