

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

Package 2A - CONSTRUCTION OF LANDSIDE FACILITIES (Site Development and other Buildings)

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	GRAND SUMMARY				
1.0	GENERAL REQUIREMENTS				
PART A	FACILITIES FOR THE ENGINEER	1	l.s.		
PART B	OTHER GENERAL REQUIREMENTS	1	l.s.		
	TOTAL - GENERAL REQUIREMENTS				
2.0	LANDSIDE - Site Development Works				
Part C	Earthworks	1	l.s.		
Part H	Miscellaneous Structures	1	l.s.		
2.1	Water Supply Wells	1	l.s.		
	TOTAL - LANDSIDE CIVIL WORKS				
3.0	OTHER BUILDINGS				
3.1	ADMINISTRATION BUILDING	1	l.s.		
3.2	CARGO TERMINAL BUILDING	1	l.s.		
3.3	AIR TRAFFIC CONTROL BUILDING	1	l.s.		
3.4	CRASH FIRE RESCUE BUILDING	1	l.s.		
3.5	POWER HOUSE BUILDING	1	l.s.		
3.6	MAINTENANCE BUILDING	1	l.s.		
3.7	MATERIAL RECOVERY FACILITIES	1	l.s.		
3.8	PUMP ROOM AND WATER RESERVOIR	1	l.s.		
3.9	CHILLED WATER PUMPHOUSE	1	l.s.		
3.10	FUEL STORAGE TANK	1	l.s.		
3.11	CHLORINATION HOUSE 1	1	l.s.		
3.12	CHLORINATION HOUSE 2	1	l.s.		
3.13	GUARD HOUSES				
3.13A	GUARD HOUSES (4 Units)	1	l.s.		
3.13B	GUARD HOUSES WITH SEPTIC TANK	1	l.s.		
3.14	DOTC-CAAP QUARTER	1	l.s.		
	TOTAL - BUILDINGS				
	TOTAL CONSTRUCTION COST - Package 2A				

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Daraga, Albay**

Package 2A - CONSTRUCTION OF LANDSIDE FACILITIES (Site Development and other Buildings)

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST

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PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	SUMMARY				
3.1	ADMINISTRATION BUILDING				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-06	WOOD AND PLASTIC		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-10	SPECIALTIES		l.s.		
DIV-13	SPECIAL CONSTRUCTION		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - ADMINISTRATION BUILDING				

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PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.1	ADMINISTRATION BUILDING				
DIV-02	SITE CONSTRUCTION				
2.1	SITE WORKS				
2.1.1	Building Layout	505	sq.m.		
2.1.2	Structure Excavation	706	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	588	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	114	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	118	cu.m.		
2.1.5	Subgrade Preparation	505	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	2,363	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm ² or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	72	cu.m.		
3.1.1.2	Suspended Beams	70	cu.m.		
3.1.1.3	Footing Tie Beam	28	cu.m.		
3.1.1.4	Suspended Slab, ramp and canopy	69	cu.m.		
3.1.1.5	Stiffeners columns, lintel and bond beam (Exterior Wall)	6	cu.m.		
3.1.1.6	Column/Pedestal Footing	45	cu.m.		
3.1.1.7	Wall Footing	14	cu.m.		
3.1.1.8	Stairs	5	cu.m.		
3.1.1.9	Counter top	1	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.1	Slab-on-grade /fill	53	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 60				
3.2.1.1	Columns and Pedestal	9,585	kg		
3.2.1.2	Suspended Beams	7,912	kg		
3.2.1.3	Stiffeners columns, lintel and bond beam (Exterior Wall)	42	kg		
3.2.1.4	Column and Wall Footing	1,741	kg		
3.2.1.5	Footing Tie Beam	2,072	kg		
3.2.2	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.2.1	Columns and Pedestal	11,313	kg		
3.2.2.2	Suspended Beams	5,663	kg		
3.2.2.3	Suspended Slab, ramps and canopy	7,194	kg		
3.2.2.4	Slab on Grade	2,373	kg		
3.2.2.5	Stairs	739	kg		
3.2.2.6	Stiffeners columns, lintel and bond beam (Exterior Wall)	1,222	kg		
3.2.2.7	Column and Wall Footing	1,789	kg		
3.2.2.8	Footing Tie Beam	1,570	kg		
3.2.2.9	Counter top	96	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	639	sq.m.		
3.3.2	Suspended Beams	742	sq.m.		
3.3.3	Suspended Slab, ramps and canopy	551	sq.m.		
3.3.4	Slab on Grade /fill	20	sq.m.		
3.3.5	Stairs	42	sq.m.		
3.3.6	Stiffeners columns, lintel and bond beam (Exterior Wall)	94	sq.m.		
3.3.7	Counter top	12	sq.m.		
3.3.8	Column and Wall Footing	151	sq.m.		
3.3.9	Footing Tie Beam	208	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				
3.4.1.1	At Slab-on-grade	296	l.m.		
3.4.1.2	At Masonry Wall	756	l.m.		
3.4.2	PVC Waterstop	27	l.m.		
	Total "DIV-03" - CONCRETE WORKS				

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PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	77	cu.m.		
4.1.2	Concrete lintel and bond beams inclusive of formworks and Steel reinforcements, Grade 40 (For Interior Walls)	18	cu.m.		
4.1.3	CHB steel reinforcements, PNS 275 (Grade 40)	7,296	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	431	sq.m.		
4.2.2	150mm thk (700 psi) - Interior Wall	269	sq.m.		
4.2.3	100mm thk (350 psi / 2.5 N/mm2)	408	sq.m.		
	Total "DIV-04" - MASONRY WORKS				
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and erection of structural steel roof framing including columns, main girders, beams, trusses, rafters, struts, purlins, sag rods, cross bracings with turn buckles, bolts, plates and all other incidentals to complete	44,129	kg		
5.2	Steel Railings				
5.2.1	38mm dia. Stainless steel handrail (H=900mm) with vertical and horizontal members including all incidentals to complete at Ramp (supply and install)	5	l.m.		
5.2.2	38mm dia. Stainless Steel Stair rail with vertical and horizontal members including all incidentals to complete (supply and install)	19	l.m.		
5.3	Miscellaneous Metals				
5.3.1	Brass Stair Nosing	44	l.m.		
	Total "DIV-05" - METAL WORKS				
DIV-06	WOOD AND PLASTIC				
6.1	Finish Carpentry				
6.1.1	20mm thick plyboard overhead cabinet, plastic laminated finish with heavy concealed hinges, handles, supports and standard accessories inclusive of all incidentals to complete, (H=700mm, W=350mm) at Pantry	1	set		
6.1.2	20mm thick plyboard base cabinet, plastic laminated finish with heavy concealed hinges, handles, supports and standard accessories inclusive of all incidentals to complete, (H=900mm, W=600mm) at Pantry	1	set		
	Total "DIV-06" - WOOD AND PLASTIC				
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	516	sq.m.		
7.1.2	Waterproofing				
7.1.2.1	Elastomeric Membrane Waterproofing				
7.1.2.1.1	25 mils for Canopy and Gutter	15	sq.m.		
7.1.2.1.2	40 mils for Toilet	49	sq.m.		
7.3	Insulation				
7.3.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	647	sq.m.		
7.4	Roofing and Accessories				
7.4.1	Banawe Roof, 0.60mm thick pre-painted longspan metal roofing, inclusive of all bended materials, hardware accessories and all incidentals to complete (Refer to Roofing Plan and Details)	647	sq.m.		
	Total "DIV-07"-THERMAL AND MOISTURE PROTECTION				
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Swing window with Fixed transom in Aluminum Powder coated frame with 6mm thk tinted glass and complete accessories				
8.1.1.1	W-1, 1.80 x 1.80m	52	set		
8.1.1.2	W-2, 1.20 x 1.80m	2	set		
8.1.1.3	W-3, 4.60 x 1.80m	1	set		

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PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.1.2	Awning window with fixed glass in Aluminum Powder coated frame with 6mm thk tinted glass and complete accessories				
8.1.2.1	W-4, 1.20 x 0.90m	7	set		
8.1.3	Fixed window in Aluminum Powder coated frame with 6mm thk tinted glass and complete accessories				
8.1.3.1	W-5, 2.70 x 0.90m	1	set		
	Sub-total "8.1" - WINDOWS				
8.2	DOORS AND PANELS				
8.2.1	Aluminum Doors				
8.2.1.1	Powder coated aluminum door with 6mm thk. Tinted tempered glass with fixed aluminum window with 6mm thk. Tinted glass with 2m x 38mmØ Stainless Steel Pull Handle (per panel)				
8.2.1.1.1	D1 - 1.80 x 2.70 / 1.35 x 1.80m (2)	1	set		
8.2.1.2	Single leaf swing powder coated aluminum door using 6mm thk. Tinted Tempered Glass with fixed transom window				
8.2.1.2.1	D-3, 0.90 x 2.15m with push and pull handle	1	set		
8.2.1.3	Double leaf powder coated aluminum swing door with 6mm thk. Tinted tempered glass				
8.2.1.3.1	D-13, 1.80 x 2.10m	1	set		
8.2.2	Wood Doors				
8.2.2.1	45mm thk. Single leaf flush hollow core wood door with view glass				
8.2.2.1.1	D-2 /9-10 /23, 0.90 x 2.10m	4	set		
8.2.2.1.2	D-14, 0.80 x 2.10m with bottom louver	1	set		
8.2.2.1.3	D-22 /25, 0.80 x 2.10m	2	set		
8.2.2.2	Double leaf flush hollow core wood door with view glass painted finish				
8.2.2.2.1	D-6 /11 /17 /20-21, 1.80 x 2.10m	5	set		
8.2.2.3	Single leaf flush hollow core plywood door painted finish				
8.2.2.3.1	D-7-8 /18-19, 0.80 x 2.10m	4	set		
8.2.2.3.2	D-8a, 1.0 x 2.10 at PWD Toilet	1	set		
8.2.2.3.3	D-24, 0.70 x 2.10m with view glass	1	set		
8.2.2.4	Single leaf flush hollow core marine plywood with bottom louver painted finish				
8.2.2.4.1	D-15, 0.80 x 2.10m	1	set		
8.2.3	Metal Doors				
8.2.3.1	Double leaf swing metal louver door including door jamb with stainless steel insect screen painted finish				
8.2.3.1.1	D-4, 2.50 x 2.65m	1	set		
8.2.3.2	Single leaf hollow metal fire exit door, 1 hour fire rated with wired glass				
8.2.3.2.1	D-5, 0.8 x 2.10m	1	set		
8.2.3.2.2	D-12, 0.8 x 2.65m	1	set		
8.2.3.3	Double leaf metal swing door painted finish				
8.2.3.3.1	D-16, 1.80 x 2.10m	1	set		
8.2.3.4	Double leaf demountable steel louver door painted finish				
8.2.3.4.1	L-1, 2.60 x 2.70m	1	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Panic device type 3 function 11 (with lever, key locks or unlocks control lever)	2	set		
8.3.1.2	Lockset series 4000 F82, Grade 1	6	set		
8.3.1.3	Lockset series 4000 F91, Grade 1	7	set		
8.3.1.4	DEADLOCK				
8.3.1.4.1	Cylinder deadlock F-16, Grade 1	2	set		
8.3.1.4.2	Deadlock series 1000 F17, Grade 1	8	set		
8.3.2	Closer				
8.3.2.1	Overhead door closer CO 2012	2	set		
8.3.2.2	Overhead Surface Closer CO 2012	8	set		
8.3.2.3	Overhead Concealed Closer	6	set		

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PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.3.3	Hinges				
8.3.3.1	Butt hinges 100mm x 100mm (4 x 4)	21	pair		
8.3.3.2	Butt hinges 114mm x 114mm (4 1/2 x 4 1/2)	32	pair		
8.3.3.3	Center pivot (top & bottom)	3	pair		
8.3.4	Door Accessories				
8.3.4.1	Door Handle				
8.3.4.1.1	Push & pull bars (customized)	4	set		
8.3.4.1.2	Push & pull bars (door manufacturer's standard)	3	set		
8.3.4.2	Push and Pull plate	8	set		
8.3.4.3	Flushbolt (top and bottom of inactive door leaf)	8	set		
8.3.4.4	Threshold				
8.3.4.4.1	Panic threshold	2	set		
8.3.4.4.2	Aluminum threshold	2	set		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	Plain cement concrete steel trowel finish	36	sq.m		
9.1.2	Plain cement concrete steel trowel finish (to receive vinyl flooring)	798	sq.m		
9.1.3	Homogeneous Vinyl Floor Tiles, 300 x 300 x 3 mm thk	798	sq.m		
9.1.4	Mortar topping for waterproof area	63	sq.m		
9.1.5	600 x 600 Non-skid Homogeneous Tiles (including mortar bed)	17	sq.m		
9.1.6	300 x 300 Unglazed Ceramic Tiles (including mortar bed)	68	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	2,136	sq.m		
9.2.2	20mm groove line	347	l.m		
9.2.3	300 x 300mm Glazed ceramic wall tiles (including mortar bed)	245	sq.m		
9.2.4	9mm thk. Fiber cement board double face wall partition panel on light weight metal frame	5	sq.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	12mm thk. Ordinary Gypsum Board on metal frame	280	sm		
9.3.2	12mm thk. Moisture Resistant Gypsum Board on metal frame	81	sm		
9.3.3	Exposed Construction Painted Finish	80	sm		
9.3.4	Metal Linear Ceiling	169	sm		
9.3.5	600 x 600 x 15 Acoustic Board on Powder coated t-runner	528	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high painted base	43	l.m.		
9.4.2	100mm high Vinyl base board	465	l.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Floor				
9.5.1.1	Epoxy paint	58	sq.m.		
9.5.2	At Wall				
9.5.2.1	Semi-gloss paint finish	1,100	sq.m.		
9.5.2.2	Painting on wooden surfaces				
9.5.2.2.1	Acrylic paint finish	842	sq.m.		
9.5.2.2.2	Latex paint flat finish	112	sq.m.		
9.5.3	At Ceiling				
9.5.3.1	Semi-gloss paint finish	80	sq.m.		
9.5.3.2	Painting on Gypsum board surfaces	361	sq.m.		
9.5.4	Painting on metal surfaces (metal doors, railings, gratings, grilles) - Epoxy Paint	47	sq.m.		
9.5.5	Painting on wood doors	127	sq.m.		
9.5.6	Painting on steel trusses				
9.5.6.1	Covered Steel/Metal	2,946	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				
DIV-10	SPECIALTIES				
10.1	6mm thick Facial mirror on 6mm thick marine plywood backing inclusive all incidentals to complete				

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PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
10.1.1	8800x1000mm	1	set		
10.1.2	2150 x 800mm	2	set		
10.1.3	1450 x 800mm	1	set		
10.1.4	1250 x 800mm	1	set		
10.1.5	950 x 800mm	1	set		
10.1.6	600 x 800mm	1	set		
10.2	Stainless Steel Grab bar at PWD Toilet	4	set		
10.3	Toilet compartments/cubicles - comprising 12mm thk intermediate panels, doors, and urinal partitions/compartments with tissue holder and clothes hook (compact laminated phenolic board) including all hardwares and accessories in nylon finish and all other incidentals to complete	64	sq.m		
10.4	Countertops				
10.4.1	Granite Countertop W=600mm	12	sq.m		
10.4.2	Ceramic Tiles Countertop	7	sq.m		
10.5	Supply and installation of aluminum compoposite panel including all incidentals to complete	418	sq.m.		
	Total "DIV-10" - SPECIALTIES				

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PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	SUMMARY				
3.2	CARGO TERMINAL BUILDING				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-10	SPECIALTIES		l.s.		
DIV-13	SPECIAL CONSTRUCTION		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - CARGO TERMINAL BUILDING				

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PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.2	CARGO TERMINAL BUILDING				
DIV-02	SITE CONSTRUCTION				
2	SITE WORKS				
2.1.1	Building Layout	273	sq.m.		
2.1.2	Structure Excavation	326	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	326	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	56	cu.m.		
2.1.3.3	Imported Soil to Fill (Borrow Embankment) - FGL to FFL	160	cu.m.		
2.1.4	Subgrade Preparation	273	sq.m.		
2.1.5	Anti-termites treatment to surfaces of ground and sides and bottoms of excavations	890	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm ² or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	23	cu.m.		
3.1.1.2	Suspended Beams	10	cu.m.		
3.1.1.3	Footing Tie Beam	10	cu.m.		
3.1.1.4	Suspended Slab, ramp and canopy	7	cu.m.		
3.1.1.5	Stiffeners columns, lintel and bond beam (Exterior Wall)	4	cu.m.		
3.1.1.6	Column/Pedestal Footing	17	cu.m.		
3.1.1.7	Wall Footing	7	cu.m.		
3.1.1.8	Stairs	2	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.1	Slab-on-grade /fill	41	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 60				
3.2.1.1	Columns and Pedestal	4,581	kg		
3.2.1.2	Suspended Beams	893	kg		
3.2.1.3	Stiffeners columns, lintel and bond beam (Exterior Wall)	285	kg		
3.2.1.4	Column and Wall Footing	1,277	kg		
3.2.1.5	Footing Tie Beam	878	kg		
3.2.2	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.2.1	Columns and Pedestal	4,464	kg		
3.2.2.2	Suspended Beams	1,118	kg		
3.2.2.3	Suspended Slab, ramps and canopy	594	kg		
3.2.2.4	Slab on Grade	2,150	kg		
3.2.2.5	Stairs	143	kg		
3.2.2.6	Stiffeners columns, lintel and bond beam (Exterior Wall)	488	kg		
3.2.2.7	Column and Wall Footing	643	kg		
3.2.2.8	Footing Tie Beam	476	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	192	sq.m.		
3.3.2	Suspended Beams	110	sq.m.		
3.3.3	Suspended Slab, ramps and canopy	39	sq.m.		
3.3.4	Slab on Grade	22	sq.m.		
3.3.5	Stairs	13	sq.m.		
3.3.6	Stiffeners columns, lintel and bond beam (Exterior Wall)	48	sq.m.		
3.3.7	Column and Wall Footing	59	sq.m.		
3.3.8	Footing Tie Beam	56	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				
3.4.1.1	At Slab-on-grade	247	l.m.		
3.4.1.2	At Masonry Wall	158	l.m.		
3.4.2	PVC Waterstop	8	l.m.		
	Total "DIV-03" - CONCRETE WORKS				
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	32	cu.m.		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
4.1.2	Concrete lintel and bond beams inclusive of formworks and Steel reinforcements, Grade 40 (For Interior Walls)	1	cu.m.		
4.1.3	CHB steel reinforcements, PNS 275 (Grade 40)	2,461	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	357	sq.m.		
4.2.2	150mm thk (700 psi) - Interior Wall	6	sq.m.		
4.2.3	100mm thk (350 psi / 2.5 N/mm ²)	20	sq.m.		
	Total "DIV-04" - MASONRY WORKS				
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and erection of structural steel roof framing including columns, main girders, beams, trusses, rafters, struts, purlins, sag rods, cross bracings with turn buckles, bolts, plates and all other incidentals to complete	14,885	kg		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
5.2	Steel Railings				
5.2.1	38mm dia. Stainless steel handrail (H=900mm) with vertical and horizontal members including all incidentals to complete at Ramp (supply and install)	19	l.m.		
5.2.2	38mm dia. Stainless Steel Stair rail with vertical and horizontal members including all incidentals to complete (supply and install)	3	l.m.		
	Total "DIV-05" - METAL WORKS				
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	266	sq.m.		
7.2	Insulation				
7.2.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	163	sq.m.		
7.3	Roofing and Accessories				
7.3.1	Ga.24 preformed prepainted long span single rib metal roofing inclusive of all bended materials and incidentals to complete.	163	sq.m.		
7.4	Siding				
7.4.1	Preformed Metal Siding/Fascia	43	sq.m.		
	Total "DIV-07"-THERMAL AND MOISTURE PROTECTION				
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Swing /casement window in aluminum powder coated frame with 6mm thk. Clear glass and complete with accessories				
8.1.1.1	W-1, 2.10 x 1.25m	2	set		
8.1.2	Awning window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.2.1	W-4, 0.725 x 0.55m	1	set		
8.1.3	Fixed window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.3.1	W-2, 4.0 x 0.60m	4	set		
8.1.4	Sliding window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.4.1	W-3, 1.0 x 1.20m	1	set		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.1.5	Fixed metal louver window with stainless steel insect screen painted finish				
8.1.5.1	L-1, 5.0 x 0.60m	1	set		
	Sub-total "8.1" - WINDOWS				
8.2	DOORS AND PANELS				
8.2.1	Wood Doors				
8.2.1.1	45mm thk. Single leaf flush hollow core wood door with view glass				
8.2.1.1.1	D-4, 0.80 x 2.10m	1	set		
8.2.3	Metal Doors				
8.2.3.1	Single leaf hollow metal fire exit door, 1 hour fire rated with wired glass				
8.2.3.1.1	D-2, 0.90 x 2.10m	1	set		
8.2.3.2	Metal roll-up door				
8.2.3.2.1	D-1, 2.50 X 3.50m	1	set		
8.2.3.2.2	D-5, 3.0 x 3.50m	1	set		
8.2.4	PVC/Plastic Doors				
8.2.4.1	PVC Flush door with bottom louver including hinges and privacy lockset				
8.2.4.1.1	D-3, 0.70 x 2.10m	1	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Panic device type 3 function 11 (with lever, key locks or unlocks control lever)	1	set		
8.3.1.2	Lockset series 4000 F82, Grade 1	1	set		
8.3.2	Closer				
8.3.2.1	Overhead door closer CO 2012	1	set		
8.3.2.2	Overhead Concealed Closer	1	set		
8.3.3	Hinges				
8.3.3.1	Butt hinges 100mm x 100mm (4 x 4)	2	pair		
8.3.3.2	Butt hinges 114mm x 114mm (4 1/2 x 4 1/2)	2	pair		
8.3.4	Door Accessories				
8.3.4.1	Threshold				
8.3.4.1.1	Panic threshold	1	set		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	Plain cement concrete steel trowel finish (to receive vinyl flooring)	8	sq.m		
9.1.2	Homogeneous Vinyl Floor Tiles, 300 x 300 x 3 mm thk	8	sq.m		
9.1.3	300 x 300 Unglazed Ceramic Tiles (including mortar bed)	5	sq.m		
9.1.4	Plain cement concrete steel trowel finish with floor hardener	113	sq.m		
9.1.5	Plain cement concrete steel trowel finish with floor hardener and groove	13	sq.m		
9.1.6	50mm Abrasive strip	12	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	732	sq.m		
9.2.2	300 x 300mm Glazed ceramic wall tiles (including mortar bed)	15	sq.m		
9.2.3	300 x 300mm Accent Glazed ceramic wall tiles (including mortar bed)	2	sq.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	12mm thk. Moisture Resistant Gypsum Board on metal frame	5	sm		
9.3.2	Exposed Construction Painted Finish	36	sm		
9.3.3	600 x 600 x 15 Acoustic Board on Aluminum t-runner	8	sm		
9.3.4	6mm thk. Fiber cement ceiling board on metal frame	101	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high painted base	40	l.m.		
9.4.2	100mm high Vinyl base board	11	l.m.		
9.4.3	100mm high epoxy base line paint	40	l.m.		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Floor				
9.5.1.1	Epoxy paint	143	sq.m.		
9.5.2	At Wall				
9.5.2.1	Semi-gloss paint finish	355	sq.m.		
9.5.2.2	Painting on wooden surfaces				
9.5.2.2.1	Acrylic paint finish	425	sq.m.		
9.5.3	At Ceiling				
9.5.3.1	Semi-gloss paint finish	36	sq.m.		
9.5.3.2	Painting on Fiber cement board surfaces	101	sq.m.		
9.5.3.3	Painting on Gypsum board surfaces	5	sq.m.		
9.5.4	Painting on metal surfaces (metal doors, railings, gratings, grilles) - Epoxy Paint	13	sq.m.		
9.5.5	Painting on wood doors	6	sq.m.		
9.5.6	Painting on steel trusses				
9.5.6.1	Exposed Steel/Metal	1,008	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				
DIV-10	SPECIALTIES				
10.1	6mm thick Facial mirror on 6mm thick marine plywood backing inclusive all incidentals to complete				
10.1.1	600 x 800mm	1	set		
10.2	Toilet compartments/cubicles - comprising 12mm thk intermediate panels, doors, and urinal partitions/compartments with tissue holder and clothes hook (compact laminated phenolic board) including all hardwares and accessories in nylon finish and all other incidentals to complete	4	sq.m		
	Total "DIV-10" - SPECIALTIES				

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	SUMMARY				
3.3	AIR TRAFFIC CONTROL BUILDING				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-06	WOOD AND PLASTIC		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-10	SPECIALTIES		l.s.		
DIV-13	SPECIAL CONSTRUCTION		l.s.		
DIV-14	CONVEYING SYSTEM		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - AIR TRAFFIC CONTROL BUILDING				

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.3	AIR TRAFFIC CONTROL BUILDING				
DIV-02	SITE CONSTRUCTION				
2	SITE WORKS				
2.1.1	Building Layout	550	sq.m.		
2.1.2	Structure Excavation	1,040	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	881	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	151	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	159	cu.m.		
2.1.5	Subgrade Preparation	550	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	2,555	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm2 or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	123	cu.m.		
3.1.1.2	Suspended Beams	87	cu.m.		
3.1.1.3	Footing Tie Beam	30	cu.m.		
3.1.1.4	Suspended Slab, ramp and canopy	49	cu.m.		
3.1.1.5	Stiffeners columns, lintel and bond beam (Exterior Wall)	11	cu.m.		
3.1.1.6	Column/Pedestal Footing	87	cu.m.		
3.1.1.7	Wall Footing	22	cu.m.		
3.1.1.8	Stairs	11	cu.m.		
3.1.1.9	Counter top	1	cu.m.		
3.1.1.10	Parapet Wall	25	cu.m.		
3.1.1.11	Elevator & Escalator Pit	6	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.1	Slab-on-grade /fill	58	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 60				
3.2.1.1	Columns and Pedestal	21,257	kg		
3.2.1.2	Suspended Beams	11,615	kg		
3.2.1.3	Stiffeners columns, lintel and bond beam (Exterior Wall)	66	kg		
3.2.1.4	Column and Wall Footing	5,513	kg		
3.2.1.5	Footing Tie Beam	2,681	kg		
3.2.1.6	Elevator and Escalator Pit	1,196	kg		
3.2.2	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.2.1	Columns and Pedestal	22,328	kg		
3.2.2.2	Suspended Beams	7,174	kg		
3.2.2.3	Suspended Slab, ramps and canopy	6,860	kg		
3.2.2.4	Slab on Grade	2,778	kg		
3.2.2.5	Stairs	2,750	kg		
3.2.2.6	Stiffeners columns, lintel and bond beam (Exterior Wall)	2,767	kg		
3.2.2.7	Column and Wall Footing	1,994	kg		
3.2.2.8	Footing Tie Beam	1,788	kg		
3.2.2.9	Counter top	102	kg		
3.2.2.10	Structural/Parapet Wall	2,423	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	923	sq.m.		
3.3.2	Suspended Beams	874	sq.m.		
3.3.3	Suspended Slab, ramps and canopy	358	sq.m.		
3.3.4	Slab on Grade /fill	17	sq.m.		
3.3.5	Stairs	95	sq.m.		
3.3.6	Stiffeners columns, lintel and bond beam (Exterior Wall)	176	sq.m.		
3.3.7	Counter top	13	sq.m.		
3.3.8	Structural/Parapet Wall	401	sq.m.		
3.3.9	Column and Wall Footing	182	sq.m.		
3.3.10	Footing Tie Beam	201	sq.m.		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.3.11	Elevator and Escalator Pit	30	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				
3.4.1.1	At Slab-on-grade	338	l.m.		
3.4.1.2	At Masonry Wall	824	l.m.		
3.4.3	PVC Waterstop	159	l.m.		
	Total "DIV-03" - CONCRETE WORKS				
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	71	cu.m.		
4.1.2	Concrete lintel and bond beams inclusive of formworks and Steel reinforcements, Grade 40 (For Interior Walls)	5	cu.m.		
4.1.3	CHB steel reinforcements, PNS 275 (Grade 40)	8,973	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	446	sq.m.		
4.2.2	150mm thk (700 psi) - Interior Wall	29	sq.m.		
4.2.3	100mm thk (350 psi / 2.5 N/mm ²)	694	sq.m.		
	Total "DIV-04" - MASONRY WORKS				
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and erection of structural steel roof framing including columns, main girders, beams, trusses, rafters, struts, purlins, sag rods, cross bracings with turn buckles, bolts, plates and all other incidentals to complete	18,807	kg		
5.2	Fabrication, delivery and erection of structural steel members for Columns and Beams including all incidentals to complete	6,420	kg		
5.3	1.20mm thick Galvanized Steel Deck inclusive of bended materials and all incidental to complete.	57	sq.m.		
5.4	Steel Railings				
5.4.1	38mm dia. Stainless Steel Stair rail with vertical and horizontal members including all incidentals to complete (supply and install)	15	l.m.		
5.4.2	50mmØ Metal Pipe Railing including epoxy paint and all incidentals to complete (supply and installation)	26	l.m.		
5.5	Miscellaneous Metals				
5.5.1	Brass Stair Nosing	101	l.m.		
5.5.2	20mmØ Stainless steel ladder rung with 30 x 10mm steel side rail including angle bar, expansion bolt, hand grab and all incidental to complete, H = 4.20m	1	set		
5.5.3	20mmØ Stainless steel ladder rung with 30 x 10mm steel side rail including angle bar, expansion bolt, hand grab and all incidental to complete, H = 3.75m	1	set		
	Total "DIV-05" - METAL WORKS				
DIV-06	WOOD AND PLASTIC				
6.1	Finish Carpentry				
6.1.1	Overhead Cabinet, 20mm thk. Plywood in wood frame including hardware, expansion bolts, shelves, edging, duco paint and all incidentals to complete at GF Pantry (L = 3.65m ; W = 0.30m ; H = 0.70m)	1	set		
6.1.2	Sink Cabinet, 20mm thk. Plywood in wood frame including hardware, expansion bolts, galvanized steel frame, shelves, edging, duco paint and all incidentals to complete at GF Pantry (L = 2.85m ; W = 0.60m; H = 0.90m)	1	set		
6.1.3	Overhead Cabinet, 20mm thk. Plywood in wood frame including hardware, expansion bolts, shelves, edging, duco paint and all incidentals to complete at 6F Pantry (L = 3.60m; W = 0.30m; H = 0.70m)	1	set		

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PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
6.1.4	Sink Cabinet, 20mm thk. Plywood in wood frame including hardware, expansion bolts, galvanized steel frame, shelves, edging, duco paint and all incidentals to complete at 6F Pantry (L = 3.60m; W = 0.60m; H = 0.90m)	1	set		
6.1.5	Information counter cabinet, 20mm thk. Plywood in wood frame including hardware, shelves, drawers, wood nailer, 50mmø SS pipe post, vinyl laminate, duco paint and all incidentals to complete (L = 4.50m; W = 0.50m; H = 0.75m)	1	set		
Total "DIV-06" - WOOD AND PLASTIC					
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	705	sq.m.		
7.1.2	Waterproofing				
7.1.2.1	Elastomeric Membrane Waterproofing				
7.1.2.1.1	40 mils for Toilet	6	sq.m.		
7.1.2.1.2	Exposed type for concrete slab and parapet wall	166	sq.m.		
7.1.2.1.3	@ Elevator	14	sq.m.		
7.3	Insulation				
7.3.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	582	sq.m.		
7.4	Roofing and Accessories				
7.4.1	Ga.24 preformed prepainted long span single rib metal roofing inclusive of all banded materials and incidentals to complete.	582	sq.m.		
Total "DIV-07"-THERMAL AND MOISTURE PROTECTION					
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Swing window with Fixed transom in Aluminum Powder coated frame with 6mm thk tinted tempered glass and complete accessories				
8.1.1.1	W-1, 1.00 x 1.50m	37	set		
8.1.1.2	W-7, 4.0 x 2.10m	3	set		
8.1.2	Swing /casement window with fixed glass in aluminum powder coated frame with 6mm thk. Tinted tempered glass and complete with accessories				
8.1.2.1	W - 4, 0.975 x 1.25m	3	set		
8.1.3	Awning window with fixed glass in Aluminum Powder coated frame with 6mm thk tinted tempered glass and complete accessories				
8.1.3.1	W-3, 0.975 x 1.95m	12	set		
8.1.3	Awning window in Aluminum Powder coated frame with 6mm thk tinted tempered glass and complete accessories				
8.1.3.1	W-2, 1.0 x 0.60m	16	set		
8.1.3.2	W-6, 1.80 x 0.60m	1	set		
8.1.4	Fixed window in Aluminum powder coated frame with 2 - 12mm thk. Clear float tempered insulated glass panel w/ 2mm airspace in silicone butt joint and complete accessories				
8.1.4.1	W-8, 3.60 /2.90 x 2.25m	8	set		
8.1.5	Sliding window with fixed glass in Aluminum powder coated frame with 6mm thk. Tinted Tempered glass and complete with accessories				

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PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.1.5.1	W-5, 1.50 x 1.25m	1	set		
8.1.6	Fixed metal louver painted finish				
8.1.6.1	L-1, 4.60 x 2.70m (4 Panels)	2	set		
	Sub-total "8.1" - WINDOWS				
8.2	DOORS AND PANELS				
8.2.1	Aluminum Doors				
8.2.1.1	Double leaf powder coated aluminum swing door with 6mm thk. Clear tempered glass				
8.2.1.1.1	D-1, 1.80 x 2.10m	1	set		
8.2.1.1.2	D-16, 1.70 x 2.10m	1	set		
8.2.2	Wood Doors				
8.2.2.1	45mm thk. Single leaf flush hollow core wood door with view glass				
8.2.2.1.1	D-2/ 7/ 11/ 13/ 15/ 17/ 18/ 27/ 37, 0.80 x 2.10m	9	set		
8.2.2.1.2	D-12, 0.90 x 2.10m	1	set		
8.2.2.1.3	D-38, 0.70 x 2.10m	1	set		
8.2.2.1.4	D-3/ 6/ 10, 1.80 x 2.10m	3	set		
8.2.2.2	Single leaf flush hollow core plywood door painted finish				
8.2.2.2.1	D-26, 0.90 x 2.10m	1	set		
8.2.2.2.2	D-19/ 20, 0.80 x 2.10m	2	set		
8.2.2.2.3	D-8, 0.70 x 2.10m	1	set		
8.2.2.2.4	D-30/ 31/ 33 / 35 , 0.60 x 2.10m	4	set		
8.2.2.2.5	D-14, 0.50 x 2.10m	1	set		
8.2.2.3	Single leaf flush hollow core marine plywood with bottom louver painted finish				
8.2.2.3.1	D-21 to 25, 0.80 x 2.10m	5	set		
8.2.2.3.2	D-39, 0.70 x 2.10m	1	set		
8.2.2.4	19mm thk. Plywood Door for Pipe Chase				
8.2.2.4.1	D-46, 1.0 x 1.50m (Single leaf)	6	set		
8.2.2.4.2	D-47, 0.50 x 1.50m (Double Leaf)	1	set		
8.2.3	Metal Doors				
8.2.3.1	Single leaf hollow metal fire exit door, 1 hour fire rated with wired glass				
8.2.3.1.1	D-5/ 28/ 29/ 32/ 34/ 36/ 40 to 43, 0.80 x 2.10m	10	set		
8.2.3.1.2	D-44 /45, 0.80 x 1.20m	2	set		
8.2.3.2	Double leaf metal swing door painted finish				
8.2.3.2.1	D-4, 1.80 x 2.10m	1	set		
8.2.3.3	Sliding metal louver door, painted finish including track, hardware and accessories to complete				
8.2.3.3.1	D-9, 1.90 x 2.10m	1	set		
8.2.5	GLAZING WORKS				
8.2.5.1	Glass Blocks including adhesive and accessories to complete	3	sq.m.		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Panic device type 3 function 11 (with lever, key locks or unlocks control lever)	12	set		
8.3.1.2	Lockset series 4000 F82, Grade 1	11	set		
8.3.1.3	Lockset series 4000 F91, Grade 1	4	set		
8.3.1.4	Storage Lockset function lever type	2	set		
8.3.1.5	DEADLOCK				
8.3.1.5.1	Cylinder deadlock F-16, Grade 1	2	set		
8.3.1.5.2	Deadlock series 1000 F17, Grade 1	8	set		
8.3.2	Closer				
8.3.2.1	Overhead door closer CO 2012	12	set		
8.3.2.2	Overhead Surface Closer CO 2012	8	set		
8.3.2.3	Overhead Concealed Closer	13	set		
8.3.3	Hinges				
8.3.3.1	Butt hinges 100mm x 100mm (4 x 4)	32	pair		
8.3.3.2	Butt hinges 114mm x 114mm (4 1/2 x 4 1/2)	40	pair		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.3.3.3	Center pivot (top & bottom)	4	pair		
8.3.4	Door Accessories				
8.3.4.1	Door Handle				
8.3.4.1.1	Push & pull bars (customized)	8	set		
8.3.4.2	Push and Pull plate	8	set		
8.3.4.3	Flushbolt (top and bottom of inactive door leaf)	6	set		
8.3.4.4	Threshold				
8.3.4.4.1	Panic threshold	12	set		
8.3.4.4.2	Aluminum threshold	2	set		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	Plain cement concrete steel trowel finish	154	sq.m		
9.1.2	Plain cement concrete steel trowel finish (to receive vinyl flooring)	367	sq.m		
9.1.3	Homogeneous Vinyl Floor Tiles, 300 x 300 x 3 mm thk	367	sq.m		
9.1.4	Mortar topping for waterproof area	20	sq.m		
9.1.5	50mm thk. Concrete topping with 25mmø x 50 x 50mm wiremesh reinforcement	166	sq.m		
9.1.6	600 x 600 Homogeneous Polished Tiles (including mortar bed)	116	sq.m		
9.1.7	300 x 300 Unglazed Ceramic Tiles (including mortar bed)	104	sq.m		
9.1.8	200 x 200 Unglazed Ceramic Tiles (including mortar bed)	2	sq.m		
9.1.9	Raised Flooring	38	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	2,967	sq.m		
9.2.2	300 x 300mm Glazed ceramic wall tiles (including mortar bed)	113	sq.m		
9.2.3	200 x 200mm Glazed ceramic wall tiles (including mortar bed)	2	sq.m		
9.2.4	12mm thk. Fiber cement board double face wall partition panel on light weight metal frame	81	sq.m		
9.2.5	12mm groove line	313	l.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	12mm thk. Ordinary Gypsum Board on metal frame	252	sm		
9.3.2	12mm thk. Moisture Resistant Gypsum Board on metal frame	106	sm		
9.3.3	Exposed Construction Painted Finish	197	sm		
9.3.4	600 x 600 x 15 Acoustic Board on Aluminum t-runner	285	sm		
9.3.5	9mm thk. Fiber cement ceiling board on metal frame	98	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high painted base	293	l.m.		
9.4.2	100mm high Vinyl base board	209	l.m.		
9.4.3	300 x 300mm high Glazed Ceramic Tile	75	sq.m.		
9.4.4	200 x 200 mm high Unglazed ceramic tile	4	sq.m.		
9.4.5	100 x 400mm Non-skid Homogeneous Tiles	101	sq.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Floor				
9.5.1.1	Epoxy paint	62	sq.m.		
9.5.2	At Wall				
9.5.2.1	Semi-gloss paint finish	1,702	sq.m.		
9.5.2.2	Painting on wooden surfaces				
9.5.2.2.1	Acrylic paint finish	1,083	sq.m.		
9.5.3	At Ceiling				
9.5.3.1	Semi-gloss paint finish	197	sq.m.		
9.5.3.2	Painting on Fiber cement board surfaces	98	sq.m.		
9.5.3.3	Painting on Gypsum board surfaces	357	sq.m.		
9.5.4	Painting on metal surfaces (metal doors, railings, gratings, grilles) - Epoxy Paint	134	sq.m.		
9.5.5	Painting on wood doors	198	sq.m.		
9.5.6	Painting on steel trusses				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
9.5.6.1	Exposed Steel/Metal	1,350	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				
DIV-10	SPECIALTIES				
10.1	6mm thick Facial mirror on 6mm thick marine plywood backing inclusive all incidentals to complete				
10.1.1	2400 x 900mm	2	set		
10.1.2	1800 x 900mm	2	set		
10.1.3	600 x 800mm	1	set		
10.2	Stainless Steel Grab bar at PWD Toilet	4	set		
10.3	Toilet compartments/cubicles - comprising 12mm thk intermediate panels, doors, and urinal partitions/compartments with tissue holder and clothes hook (compact laminated phenolic board) including all hardwares and accessories in nylon finish and all other incidentals to complete	32	sq.m		
10.4	Countertops				
10.4.1	Granite Countertop W=600mm	15	sq.m		
10.4.2	Monolithic Solid Surface Countertop	2	sq.m		
10.5	Supply and installation of aluminum compoposite panel including all incidentals to complete	77	sq.m.		
	Total "DIV-10" - SPECIALTIES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	SUMMARY				
3.4	CRASH FIRE RESCUE BUILDING				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-06	WOOD AND PLASTIC		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-10	SPECIALTIES		l.s.		
DIV-13	SPECIAL CONSTRUCTION		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - CRASH FIRE RESCUE BUILDING				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.4	CRASH FIRE RESCUE BUILDING				
DIV-02	SITE CONSTRUCTION				
2	SITE WORKS				
2.1.1	Building Layout	553	sq.m.		
2.1.2	Structure Excavation	504	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	419	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	113	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	85	cu.m.		
2.1.5	Subgrade Preparation	553	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	1,971	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm2 or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	58	cu.m.		
3.1.1.2	Suspended Beams	46	cu.m.		
3.1.1.3	Footing Tie Beam	24	cu.m.		
3.1.1.4	Suspended Slab and ramps	13	cu.m.		
3.1.1.5	Stiffeners columns, lintel and bond beam (Exterior Wall)	4	cu.m.		
3.1.1.6	Concrete Gutter (slab & parapet wall)	55	cu.m.		
3.1.1.7	Column/Pedestal Footing	27	cu.m.		
3.1.1.8	Wall Footing	6	cu.m.		
3.1.1.9	Stairs	7	cu.m.		
3.1.1.10	Counter top	1	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.1	Slab-on-grade /fill	78	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 60				
3.2.1.1	Columns and Pedestal	8,527	kg		
3.2.1.2	Suspended Beams	5,619	kg		
3.2.1.3	Stiffeners columns, lintel and bond beam (Exterior Wall)	57	kg		
3.2.1.4	Column and Wall Footing	1,099	kg		
3.2.1.5	Footing Tie Beam	2,179	kg		
3.2.2	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.2.1	Columns and Pedestal	9,575	kg		
3.2.2.2	Suspended Beams	2,904	kg		
3.2.2.3	Suspended Slab, ramps and canopy	1,379	kg		
3.2.2.4	Slab on Grade	3,467	kg		
3.2.2.5	Stairs	810	kg		
3.2.2.6	Stiffeners columns, lintel and bond beam (Exterior Wall)	788	kg		
3.2.2.7	Column and Wall Footing	355	kg		
3.2.2.8	Footing Tie Beam	1,327	kg		
3.2.2.9	Concrete Gutter (slab & parapet wall)	5,195	kg		
3.2.2.10	Counter top	109	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	472	sq.m.		
3.3.2	Suspended Beams	409	sq.m.		
3.3.3	Suspended Slab, ramps and canopy	103	sq.m.		
3.3.4	Slab on Grade /fill	13	sq.m.		
3.3.5	Stairs	49	sq.m.		
3.3.6	Stiffeners columns, lintel and bond beam (Exterior Wall)	61	sq.m.		
3.3.7	Concrete Gutter (slab & parapet wall)	680	sq.m.		
3.3.8	Counter top	13	sq.m.		
3.3.9	Column and Wall Footing	82	sq.m.		
3.3.10	Footing Tie Beam	171	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.4.1.1	At Slab-on-grade	196	l.m.		
3.4.1.2	At Masonry Wall	549	l.m.		
3.4.2	PVC Waterstop	324	l.m.		
Total "DIV-03" - CONCRETE WORKS					
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	36	cu.m.		
4.1.2	Concrete lintel and bond beams inclusive of formworks and Steel reinforcements, Grade 40 (For Interior Walls)	2	cu.m.		
4.1.3	CHB steel reinforcements, PNS 275 (Grade 40)	4,348	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	275	sq.m.		
4.2.2	100mm thk (350 psi / 2.5 N/mm2)	273	sq.m.		
Total "DIV-04" - MASONRY WORKS					
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and erection of structural steel roof framing including columns, main girders, beams, trusses, rafters, struts, purlins, sag rods, cross bracings with turn buckles, bolts, plates and all other incidentals to complete	32,187	kg		
5.2	Steel Railings				
5.2.1	50mm dia. Stainless Steel Stair rail, vertical and horizontal members with 38mm dia. Stainless steel subrail including all incidentals to complete (supply and install)	17	l.m.		
5.2.2	50mm dia. Stainless Steel wall mounted handrail including all incidentals to complete (supply and install)	15	l.m.		
Total "DIV-05" - METAL WORKS					
DIV-06	WOOD AND PLASTIC				
6.1	Finish Carpentry				
6.1.4.1	20mm thick Plywood base cabinet, with galvanized angle frame, handles, supports and standard accessories inclusive of all incidentals and duco paint finish to complete (H = 900mm, W=600mm) at Lecture Room CFR Building	3	set		
6.1.4.2	20mm thick Plywood base cabinet, with galvanized angle frame, handles, supports and standard accessories inclusive of all incidentals and duco paint finish to complete (H = 900mm, W=600mm) at Pantry	1	set		
Total "DIV-06" - WOOD AND PLASTIC					
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	553	sq.m.		
7.1.2	Waterproofing				
7.1.2.1	Elastomeric Membrane Waterproofing				
7.1.2.1.1	25 mils for Canopy and Gutter	336	sq.m.		
7.1.2.1.2	40 mils for Toilet	10	sq.m.		
7.3	Insulation				
7.3.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	608	sq.m.		
7.4	Roofing and Accessories				
7.4.1	Ga.24 preformed prepainted long span single rib metal roofing inclusive of all banded materials and incidentals to complete.	608	sq.m.		
7.4.2	Skylight Roofing	579	sq.m.		
Total "DIV-07"-THERMAL AND MOISTURE PROTECTION					
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Swing window with Fixed transom in Aluminum Powder coated frame with 6mm thk tinted glass and complete accessories				
8.1.1.1	W-3, 1.0 x 1.50m	22	set		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.1.2	Swing /casement window with fixed glass in aluminum powder coated frame with 6mm thk. Tinted tempered glass and complete with accessories				
8.1.2.1	W-2, 4.40 x 1.20m	4	set		
8.1.2.2	W-6, 5.40 x 1.20m	2	set		
8.1.3	Awning window with fixed glass in Aluminum Powder coated frame with 6mm thk tinted glass and complete accessories				
8.1.3.1	W-1, 1.475 x 6.60m	2	set		
8.1.4	Awning window in Aluminum Powder coated frame with 6mm thk tinted glass and complete accessories				
8.1.4.1	W-4, 2.20 x 0.60m	3	set		
8.1.4.2	W-5, 0.80 x 0.60m	3	set		
8.1.5	Fixed metal louver painted finish				
8.1.5.1	L-1, 3.20 x 0.90m	5	set		
	Sub-total "8.1" - WINDOWS				
8.2	DOORS AND PANELS				
8.2.1	Wood Doors				
8.2.1.1	45mm thk. Single leaf flush hollow core wood door with view glass				
8.2.1.1.1	D-8,9,11, 0.80 x 2.10m	3	set		
8.2.1.1.2	D-14, 0.70 x 2.10m	1	set		
8.2.1.2	Double leaf flush hollow core wood door with view glass painted finish				
8.2.1.2.1	D-1,2, 1.80 x 2.10m	2	set		
8.2.1.3	Single leaf flush hollow core marine plywood with bottom louver painted finish				
8.2.1.3.1	D-3, 0.60 x 2.10m	1	set		
8.2.1.3.2	D-4,15,17, 0.70 x 2.10m	3	set		
8.2.1.3.3	D-5,7, 0.80 x 2.10m	2	set		
8.2.2	Metal Doors				
8.2.2.1	Single leaf hollow metal fire exit door, 1 hour fire rated with wired glass				
8.2.2.1.1	D-6, 0.70 x 2.10m	1	set		
8.2.2.1.2	D-13,16, 0.80 x 2.10m	2	set		
8.2.2.2	Double leaf metal swing door painted finish				
8.2.2.2.1	D-12, 1.80 x 2.10m	1	set		
8.2.2.3	Metal roll-up door				
8.2.2.3.1	D-10, 3.0 x 2.50m	1	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Panic device type 3 function 11 (with lever, key locks or unlocks control lever)	1	set		
8.3.1.2	Lockset series 4000 F82, Grade 1	7	set		
8.3.1.3	Lockset series 4000 F91, Grade 1	3	set		
8.3.1.4	Storage Lockset function lever type	3	set		
8.3.1.5	DEADLOCK				
8.3.1.5.1	Deadlock series 1000 F17, Grade 1	2	set		
8.3.2	Closer				
8.3.2.1	Overhead door closer CO 2012	1	set		
8.3.2.2	Overhead Surface Closer CO 2012	2	set		
8.3.2.3	Overhead Concealed Closer	10	set		
8.3.3	Hinges				
8.3.3.1	Butt hinges 100mm x 100mm (4 x 4)	18	pair		
8.3.3.2	Butt hinges 114mm x 114mm (4 1/2 x 4 1/2)	14	pair		
8.3.4	Door Accessories				
8.3.4.1	Door Handle				
8.3.4.2	Push and Pull plate	2	set		
8.3.4.3	Flushbolt (top and bottom of inactive door leaf)	3	set		
8.3.4.4	Threshold				
8.3.4.4.1	Panic threshold	1	set		
	Sub-total "8.3" - HARDWARES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
Total "DIV-08" - DOORS AND WINDOWS					
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	Plain cement concrete steel trowel finish (to receive vinyl flooring)	127	sq.m		
9.1.2	Homogeneous Vinyl Floor Tiles, 300 x 300 x 3 mm thk	127	sq.m		
9.1.3	Mortar topping for waterproof area	346	sq.m		
9.1.4	400 x 400 Non-skid Homogeneous Tiles (including mortar bed)	104	sq.m		
9.1.5	300 x 300 Unglazed Ceramic Tiles (including mortar bed)	73	sq.m		
9.1.6	200 x 200 Unglazed Ceramic Tiles (including mortar bed)	2	sq.m		
9.1.7	Plain cement concrete finish with HD floor hardener	234	sq.m		
9.1.8	Plain cement concrete wood trowel finish	59	sq.m		
9.1.9	50mm Abrasive strip	56	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	1,465	sq.m		
9.2.2	300 x 300mm Glazed ceramic wall tiles (including mortar bed)	78	sq.m		
9.2.3	200 x 200mm Glazed ceramic wall tiles (including mortar bed)	3	sq.m		
9.2.4	PVC Accordion Folding Door with track, panel and accessories to complete (L=1.50m x 2.55m H)	2	sq.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	12mm thk. Ordinary Gypsum Board on metal frame	94	sm		
9.3.2	12mm thk. Moisture Resistant Gypsum Board on metal frame	67	sm		
9.3.3	Exposed Construction Painted Finish	37	sm		
9.3.4	600 x 600 x 15 Acoustic Board on Aluminum t-runner	41	sm		
9.3.5	4.5mm thk. Fiber cement ceiling board on metal frame	412	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high painted base	131	l.m.		
9.4.2	100mm high Vinyl base board	51	l.m.		
9.4.3	300 x 300mm high Glazed Ceramic Tile	37	sq.m.		
9.4.4	200 x 200 mm high Unglazed ceramic tile	5	sq.m.		
9.4.5	100 x 400mm Non-skid Homogeneous Tiles	63	sq.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Floor				
9.5.1.1	Epoxy paint	59	sq.m.		
9.5.2	At Wall				
9.5.2.1	Semi-gloss paint finish	506	sq.m.		
9.5.2.2	Painting on wooden surfaces				
9.5.2.2.1	Acrylic paint finish	741	sq.m.		
9.5.2.2.2	Latex paint flat finish	122	sq.m.		
9.5.3	At Ceiling				
9.5.3.1	Semi-gloss paint finish	37	sq.m.		
9.5.3.2	Painting on Fiber cement board surfaces	412	sq.m.		
9.5.3.3	Painting on Gypsum board surfaces	161	sq.m.		
9.5.4	Painting on metal surfaces (metal doors, railings, gratings, grilles) - Epoxy Paint	80	sq.m.		
9.5.5	Painting on wood doors	115	sq.m.		
9.5.6	Painting on steel trusses				
9.5.6.1	Covered Steel/Metal	1,634	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				
DIV-10	SPECIALTIES				
10.1	6mm thick Facial mirror on 6mm thick marine plywood backing inclusive all incidentals to complete				
10.1.1	2400 x 800mm	1	set		
10.1.2	800 x 800mm	3	set		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
10.2	Toilet compartments/cubicles - comprising 12mm thk intermediate panels, doors, and urinal partitions/compartments with tissue holder and clothes hook (compact laminated phenolic board) including all hardwares and accessories in nylon finish and all other incidentals to complete	10	sq.m		
10.3	Countertops				
10.3.1	Granite Countertop W=600mm	4	sq.m		
10.3.2	Monolithic Solid Surface Countertop	6	sq.m		
	Total "DIV-10" - SPECIALTIES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	SUMMARY				
3.5	POWER HOUSE BUILDING				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-10	SPECIALTIES		l.s.		
DIV-13	SPECIAL CONSTRUCTION		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - POWER HOUSE BUILDING				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.5	POWER HOUSE BUILDING				
DIV-02	SITE CONSTRUCTION				
2	SITE WORKS				
2.1.1	Building Layout	443	sq.m.		
2.1.2	Structure Excavation	339	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	237	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	93	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	102	cu.m.		
2.1.5	Subgrade Preparation	443	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	1,321	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm ² or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	20	cu.m.		
3.1.1.2	Suspended Beams	19	cu.m.		
3.1.1.3	Footing Tie Beam	26	cu.m.		
3.1.1.4	Stiffeners columns, lintel and bond beam (Exterior Wall)	4	cu.m.		
3.1.1.5	Column/Pedestal Footing	18	cu.m.		
3.1.1.6	Wall Footing	6	cu.m.		
3.1.1.7	Equipment pad	30	cu.m.		
3.1.1.8	Maintenance/Trench/Cable pit	18	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.1	Slab-on-grade /fill	55	cu.m.		
3.1.2	Lean concrete; 2000 psi or 13.79 Mpa				
3.1.2.1	Equipment pad	3	cu.m.		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 60				
3.2.1.1	Columns and Pedestal	3,433	kg		
3.2.1.2	Suspended Beams	2,029	kg		
3.2.1.3	Stiffeners columns, lintel and bond beam (Exterior Wall)	476	kg		
3.2.1.4	Column and Wall Footing	1,119	kg		
3.2.1.5	Footing Tie Beam	1,857	kg		
3.2.1.6	Equipment Pad	1,582	kg		
3.2.2	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.2.1	Columns and Pedestal	4,636	kg		
3.2.2.2	Suspended Beams	1,275	kg		
3.2.2.3	Slab on Grade	2,754	kg		
3.2.2.4	Stiffeners columns, lintel and bond beam (Exterior Wall)	449	kg		
3.2.2.5	Column and Wall Footing	788	kg		
3.2.2.6	Footing Tie Beam	1,024	kg		
3.2.2.7	Equipment pad	418	kg		
3.2.2.8	Maintenance/Trench/Cable pit	1,228	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	188	sq.m.		
3.3.2	Suspended Beams	178	sq.m.		
3.3.3	Slab on Grade /fill	16	sq.m.		
3.3.4	Stiffeners columns, lintel and bond beam (Exterior Wall)	51	sq.m.		
3.3.5	Equipment pad	58	sq.m.		
3.3.6	Maintenance/Trench/Cable pit	170	sq.m.		
3.3.7	Column and Wall Footing	66	sq.m.		
3.3.8	Footing Tie Beam	124	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				
3.4.1.1	At Slab-on-grade	353	l.m.		
3.4.1.2	At Masonry Wall	301	l.m.		
	Total "DIV-03" - CONCRETE WORKS				
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	37	cu.m.		
4.1.2	Concrete lintel and bond beams inclusive of formworks and Steel reinforcements, Grade 40 (For Interior Walls)	4	cu.m.		
4.1.3	CHB steel reinforcements, PNS 275 (Grade 40)	3,132	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	309	sq.m.		
4.2.2	150mm thk (700 psi) - Interior Wall	7	sq.m.		
4.2.3	100mm thk (350 psi / 2.5 N/mm2)	225	sq.m.		
	Total "DIV-04" - MASONRY WORKS				
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and erection of structural steel roof framing including columns, main girders, beams, trusses, rafters, struts, purlins, sag rods, cross bracings with turn buckles, bolts, plates and all other incidentals to complete	15,826	kg		
5.2	Fabrication, delivery and installation of Misc. Plates for Tank Base Plate oncluding bolts and all incidentals to complete	25	kg		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
5.3	Fabrication, delivery and installation of 6mm thk checkered plate cover including support and frame to complete for trench & cable cover	4,310	kg		
5.4	Miscellaneous Metals				
5.4.1	100mm Chainlink with 50mmø G.I Pipe Frame, Epoxy Painted Finish (refer to drawings for detailed design)	18	sq.m.		
	Total "DIV-05" - METAL WORKS				
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	463	sq.m.		
7.2	Insulation				
7.2.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	479	sq.m.		
7.3	Roofing and Accessories				
7.3.1	Ga.24 preformed prepainted long span single rib metal roofing inclusive of all banded materials and incidentals to complete.	479	sq.m.		
7.3.2	6mm thick fiber cement fascia board				
7.3.2.1	940mm high	64	l.m.		
7.4	Siding				
7.4.1	4.5mm thk. Fiber cement board backing on furring channel	81	sq.m.		
	Total "DIV-07"-THERMAL AND MOISTURE PROTECTION				
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Swing /casement window with fixed glass in aluminum powder coated frame with 6mm thk. Tinted tempered glass and complete with accessories				
8.1.1.1	W-2, 1.20 x 1.20m	1	set		
8.1.2	Awning window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.2.1	W-1, 1.60 x 0.6	2	set		
8.1.2.2	W-6, 1.60 x 0.6	1	set		
8.1.3	Fixed window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.3.1	W-3, 6.0 x 1.2	1	set		
8.1.3.2	W-4, 1. 3.0x1.2	1	set		
8.1.3.3	W-5 2.0x1.2	1	set		
8.1.4	Fixed metal louver window with stainless steel insect screen painted finish				
8.1.4.1	L-1, 6x3 (demountable)	1	set		
8.1.4.2	L-2, 3x3 (demountable)	4	set		
	Sub-total "8.1" - WINDOWS				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.2	DOORS AND PANELS				
8.2.1	Metal Doors				
8.2.1.1	Single leaf swing metal louver door including door jamb with stainless steel insect screen painted finish				
8.2.1.1.1	D-5, 0.80 x 2.10m (1 hour fire rated)	1	set		
8.2.1.2	Single leaf hollow metal fire exit door, 1 hour fire rated with wired glass				
8.2.1.2.1	D-1, 0.90 x 2.10m	1	set		
8.2.1.2.2	D-6, 0.90 x 2.10m	1	set		
8.2.1.2.3	D-8,9, 0.90 x 2.10m	2	set		
8.2.1.3	Metal roll-up door				
8.2.1.3.1	D-7, 4.0 x 3.0m	1	set		
8.2.1.4	Single leaf hollow metal door, 1 hour fire rated painted finish				
8.2.1.4.1	D-2,3,4 0.80 x 2.10m	3	set		
8.2.1.4.2	D-11, 0.80 x 2.10m	1	set		
8.2.4	PVC/Plastic Doors				
8.2.4.1	PVC Flush door with bottom louver including hinges and privacy lockset				
8.2.4.1.1	D-10, 0.60 x 2.10m	1	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Panic device type 3 function 11 (with lever, key locks or unlocks control lever)	7	set		
8.3.1.2	Lockset series 4000 F82, Grade 1	2	set		
8.3.2	Closer				
8.3.2.1	Overhead door closer CO 2012	7	set		
8.3.2.2	Overhead Concealed Closer	2	set		
8.3.3	Hinges				
8.3.3.1	Butt hinges 100mm x 100mm (4 x 4)	3	pair		
8.3.3.2	Butt hinges 114mm x 114mm (4 1/2 x 4 1/2)	14	pair		
8.3.4	Door Accessories				
8.3.4.1	Door Handle				
8.3.4.2	Threshold				
8.3.4.2.1	Panic threshold	7	set		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	Plain cement concrete steel trowel finish	23	sq.m		
9.1.2	Plain cement concrete steel trowel finish (to receive vinyl flooring)	39	sq.m		
9.1.3	Homogeneous Vinyl Floor Tiles, 300 x 300 x 3 mm thk	39	sq.m		
9.1.4	Plain cement concrete steel trowel finish with groove	9	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	1,234	sq.m		
9.2.2	300 x 300mm Glazed ceramic wall tiles (including mortar bed)	11	sq.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	12mm thk. Moisture Resistant Gypsum Board on metal frame	3	sm		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
9.3.2	600 x 600 x 15 Acoustic Board on Aluminum t-runner	39	sm		
9.3.3	6mm thk. Fiber cement ceiling board on metal frame	79	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high Vinyl base board	26	l.m.		
9.4.2	100mm high epoxy base line paint	152	l.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Floor				
9.5.1.1	Epoxy paint	459	sq.m.		
9.5.2	At Wall				
9.5.2.1	Semi-gloss paint finish	55	sq.m.		
9.5.2.2	Painting on wooden surfaces				
9.5.2.2.1	Acrylic paint finish	382	sq.m.		
9.5.2.2.2	Latex paint flat finish	731	sq.m.		
9.5.3	At Ceiling				
9.5.3.2	Painting on Fiber cement board surfaces	224	sq.m.		
9.5.3.3	Painting on Gypsum board surfaces	3	sq.m.		
9.5.4	Painting on metal surfaces (metal doors, railings, gratings, grilles) - Epoxy Paint	339	sq.m.		
9.5.5	Painting on steel trusses				
9.5.5.1	Exposed Steel/Metal	1,074	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				
DIV-10	SPECIALTIES				
10.1	6mm thick Facial mirror on 6mm thick marine plywood backing inclusive all incidentals to complete				
10.1.1	600 x 800mm	1	set		
	Total "DIV-10" - SPECIALTIES				

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	SUMMARY				
3.6	MAINTENANCE BUILDING				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-10	SPECIALTIES		l.s.		
DIV-13	SPECIAL CONSTRUCTION		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - MAINTENANCE BUILDING				

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.6	MAINTENANCE BUILDING				
DIV-02	SITE CONSTRUCTION				
2	SITE WORKS				
2.1.1	Building Layout	792	sq.m.		
2.1.2	Structure Excavation	410	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	321	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	155	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	89	cu.m.		
2.1.5	Subgrade Preparation	792	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	1,666	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm ² or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	35	cu.m.		
3.1.1.2	Suspended Beams	22	cu.m.		
3.1.1.3	Footing Tie Beam	14	cu.m.		
3.1.1.4	Suspended Slab and ramps	11	cu.m.		
3.1.1.5	Stiffeners columns, lintel and bond beam (Exterior Wall)	4	cu.m.		
3.1.1.6	Column/Pedestal Footing	48	cu.m.		
3.1.1.7	Wall Footing	5	cu.m.		
3.1.1.8	Counter top	0.3	cu.m.		
3.1.1.9	Maintenance/Trench/Cable pit	9	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.2	Slab-on-grade /fill	118	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 60				
3.2.1.1	Columns and Pedestal	7,779	kg		
3.2.1.2	Suspended Beams	1,476	kg		
3.2.1.3	Stiffeners columns, lintel and bond beam (Exterior Wall)	19	kg		
3.2.1.4	Column and Wall Footing	6,216	kg		
3.2.1.5	Footing Tie Beam	752	kg		
3.2.1.6	Maintenance/Trench/Cable pit	283	kg		
3.2.2	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.2.1	Columns and Pedestal	8,270	kg		
3.2.2.2	Suspended Beams	1,966	kg		
3.2.2.3	Suspended Slab, ramps and canopy	962	kg		
3.2.2.4	Slab on Grade	8,279	kg		
3.2.2.5	Stiffeners columns, lintel and bond beam (Exterior Wall)	844	kg		
3.2.2.6	Column and Wall Footing	684	kg		
3.2.2.7	Footing Tie Beam	744	kg		
3.2.2.8	Counter top	33	kg		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.2.2.9	Maintenance/Trench/Cable pit	607	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	295	sq.m.		
3.3.2	Suspended Beams	232	sq.m.		
3.3.3	Suspended Slab, ramps and canopy	91	sq.m.		
3.3.4	Slab on Grade /fill	35	sq.m.		
3.3.5	Stiffeners columns, lintel and bond beam (Exterior Wall)	64	sq.m.		
3.3.6	Counter top	4	sq.m.		
3.3.7	Maintenance/Trench/Cable pit	77	sq.m.		
3.3.8	Column and Wall Footing	101	sq.m.		
3.3.9	Footing Tie Beam	87	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				
3.4.1.1	At Slab-on-grade	347	l.m.		
3.4.1.2	At Masonry Wall	466	l.m.		
3.4.2	PVC Waterstop	28	l.m.		
	Total "DIV-03" - CONCRETE WORKS				
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	45	cu.m.		
4.1.2	Concrete lintel and bond beams inclusive of formworks and Steel reinforcements, Grade 40 (For Interior Walls)	1	cu.m.		
4.1.3	CHB steel reinforcements, PNS 275 (Grade 40)	3,855	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	433	sq.m.		
4.2.2	150mm thk (700 psi) - Interior Wall	16	sq.m.		
4.2.3	100mm thk (350 psi / 2.5 N/mm2)	161	sq.m.		
	Total "DIV-04" - MASONRY WORKS				
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and erection of structural steel roof framing including columns, main girders, beams, trusses, rafters, struts, purlins, sag rods, cross bracings with turn buckles, bolts, plates and all other incidentals to complete	31,434	kg		
5.2	Fabrication, delivery and installation of 6mm thk checkered plate cover including support and frame to complete for Sumo pit frame	97	kg		
5.3	Miscellaneous Metals				
5.3.1	Trench drain steel grating cover				
5.3.1.1	200mm width	20	l.m.		
5.3.1.2	600mm width	1	l.m.		
5.3.2	100mm Chainlink with 50mmø G.I Pipe Frame, Epoxy Painted Finish (refer to drawings for detailed design)	5	sq.m.		
5.3.3	150mmø GIP Guard Post including concrete filler, painting, installation and accessories to complete	16	set		
	Total "DIV-05" - METAL WORKS				
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	829	sq.m.		
7.2	Insulation				

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
7.2.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	730	sq.m.		
7.3	Roofing and Accessories				
7.3.1	Ga.24 preformed prepainted long span single rib metal roofing inclusive of all bended materials and incidentals to complete.	730	sq.m.		
7.3.2	6mm thick fiber cement fascia board				
7.3.2.1	940mm high	64	l.m.		
7.4	Siding				
7.4.1	4.5mm thk. Fiber cement board backing on furring channel	84	sq.m.		
	Total "DIV-07"-THERMAL AND MOISTURE PROTECTION				
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Swing /casement window with fixed glass in aluminum powder coated frame with 6mm thk. Clear glass and complete with accessories				
8.1.1.1	W-1, 3.20 x 1.80m	2	set		
8.1.1.2	W-3, 1.60 x 1.80m	1	set		
8.1.2	Awning window with fixed glass in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.2.1	W-4, 1.60 x 1.0m	3	set		
8.1.3	Awning window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.3.1	W-5, 0.70 x 0.60m	1	set		
8.1.4	Fixed window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.4.1	W-6, 3.20 x 0.60m	1	set		
8.1.5	Sliding window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.5.1	W-2, 1.60 x 1.20m	2	set		
8.1.6	Fixed metal louver with 6mm thk. Float glass transom painted finish				
8.1.6.1	L-1, 3.20 x 1.80m	9	set		
	Sub-total "8.1" - WINDOWS				
8.2	DOORS AND PANELS				
8.2.1	Aluminum Doors				
8.2.1.1	Single leaf powder coated aluminum door with 6mm thk. Clear glass including push and pull bar (as per manufacturer's standard)				
8.2.1.1.1	D-11, 0.80 x 2.10m	1	set		
8.2.1.1.2	D-13,14,15, 0.80 x 2.10m	3	set		
8.2.2	Wood Doors				
8.2.2.1	Single leaf flush hollow core plywood door painted finish				
8.2.2.1.1	D-8, 0.90 x 2.10m	1	set		
8.2.2.2	Single leaf flush hollow core marine plywood with bottom louver painted finish				
8.2.2.2.1	D-9,10, 0.80 x 2.10m	2	set		
8.2.3	Metal Doors				
8.2.3.1	Single leaf hollow metal fire exit door, 1 hour fire rated with wired glass				
8.2.3.1.1	D-5,6, 0.80 x 2.10m with metal threshold	2	set		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.2.3.1.2	D-16,17, 0.80 x 2.10m	2	set		
8.2.3.2	Metal roll-up door				
8.2.3.2.1	D-1,2,3,4, 4.50 x 4.45m	4	set		
8.2.4	PVC/Plastic Doors				
8.2.4.1	PVC Flush door with bottom louver including hinges and privacy lockset				
8.2.4.1.1	D-12, 0.70 x 2.10m	1	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Panic device type 3 function 11 (with lever, key locks or unlocks control lever)	4	set		
8.3.1.2	Lockset series 4000 F82, Grade 1	1	set		
8.3.1.5	DEADLOCK				
8.3.1.5.1	Cylinder deadlock F-16, Grade 1	4	set		
8.3.1.5.2	Deadlock series 1000 F17, Grade 1	2	set		
8.3.2	Closer				
8.3.2.1	Overhead door closer CO 2012	4	set		
8.3.2.2	Overhead Surface Closer CO 2012	2	set		
8.3.2.3	Overhead Concealed Closer	1	set		
8.3.3	Hinges				
8.3.3.1	Butt hinges 100mm x 100mm (4 x 4)	5	pair		
8.3.3.2	Butt hinges 114mm x 114mm (4 1/2 x 4 1/2)	8	pair		
8.3.3.3	Center pivot (top & bottom)	4	pair		
8.3.4	Door Accessories				
8.3.4.1	Door Handle				
8.3.4.2	Push and Pull plate	2	set		
8.3.4.4	Threshold				
8.3.4.4.1	Panic threshold	4	set		
8.3.4.4.2	Aluminum threshold	4	set		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	Homogeneous Vinyl Floor Tiles, 300 x 300 x 3 mm thk	57	sq.m		
9.1.2	300 x 300 Unglazed Ceramic Tiles (including mortar bed)	35	sq.m		
9.1.3	Plain cement concrete steel trowel finish with floor hardener	70	sq.m		
9.1.4	Plain cement concrete steel trowel finish with floor hardener and groove	80	sq.m		
9.1.5	Plain cement concrete finish with HD floor hardener	38	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	1,446	sq.m		
9.2.2	20mm groove line	176	l.m		
9.2.3	300 x 300mm Glazed ceramic wall tiles (including mortar bed)	82	sq.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	12mm thk. Ordinary Gypsum Board on metal frame	26	sm		
9.3.2	12mm thk. Moisture Resistant Gypsum Board on metal frame	35	sm		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
9.3.3	Exposed Construction Painted Finish	153	sm		
9.3.4	600 x 600 x 15 Acoustic Board on Aluminum t-runner	48	sm		
9.3.5	6mm thk. Fiber cement ceiling board on metal frame	96	sm		
9.3.6	Vent Ceiling	4	set		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high painted base	46	l.m.		
9.4.2	100mm high Vinyl base board	56	l.m.		
9.4.3	100mm high epoxy base line paint	74	l.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Floor				
9.5.1.1	Epoxy paint	498	sq.m.		
9.5.2	At Wall				
9.5.2.1	Semi-gloss paint finish	758	sq.m.		
9.5.2.2	Painting on wooden surfaces				
9.5.2.3	Acrylic paint finish	629	sq.m.		
9.5.3	At Ceiling				
9.5.3.1	Semi-gloss paint finish	153	sq.m.		
9.5.3.2	Painting on Fiber cement board surfaces	244	sq.m.		
9.5.3.3	Painting on Gypsum board surfaces	60	sq.m.		
9.5.4	Painting on metal surfaces (metal doors, railings, gratings, grilles) - Epoxy Paint	178	sq.m.		
9.5.5	Painting on wood doors	17	sq.m.		
9.5.6	Painting on steel trusses				
9.5.6.1	Exposed Steel/Metal	1,831	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				
DIV-10	SPECIALTIES				
10.1	6mm thick Facial mirror on 6mm thick marine plywood backing inclusive all incidentals to complete				
10.1.1	2650 x 800mm	1	set		
10.1.2	600 x 800mm	1	set		
10.3	Toilet compartments/cubicles - comprising 12mm thk intermediate panels, doors, and urinal partitions/compartments with tissue holder and clothes hook (compact laminated phenolic board) including all hardwares and accessories in nylon finish and all other incidentals to complete	19	sq.m		
10.4	Countertops				
10.4.1	Granite Countertop W=600mm	3	sq.m		
	Total "DIV-10" - SPECIALTIES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	S U M M A R Y				
3.7	MATERIALS RECOVERY FACILITIES BUILDING				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - MATERIALS RECOVERY FACILITIES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.7 MATERIALS RECOVERY FACILITIES BUILDING					
DIV-02	SITE CONSTRUCTION				
2	SITE WORKS				
2.1.1	Building Layout	35	sq.m.		
2.1.2	Structure Excavation	12	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	8	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	9	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	4	cu.m.		
2.1.5	Subgrade Preparation	35	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	70	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm ² or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	3	cu.m.		
3.1.1.2	Suspended Beams	3	cu.m.		
3.1.1.9	Stiffeners columns, lintel and bond beam (Exterior Wall)	1	cu.m.		
3.1.2.3	Column/Pedestal Footing	3	cu.m.		
3.1.2.4	Wall Footing	2	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.2	Slab-on-grade /fill	4	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.1.1	Columns and Pedestal	386	kg		
3.2.2.2	Suspended Beams	291	kg		
3.2.2.4	Slab on Grade	239	kg		
3.2.2.7	Stiffeners columns, lintel and bond beam (Exterior Wall)	135	kg		
3.2.2.9	Column and Wall Footing	217	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	34	sq.m.		
3.3.2	Suspended Beams	26	sq.m.		
3.3.4	Slab on Grade /fill	2	sq.m.		
3.3.8	Stiffeners columns, lintel and bond beam (Exterior Wall)	10	sq.m.		
3.3.15	Column and Wall Footing	18	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				
3.4.1.1	At Slab-on-grade	42	l.m.		
	At Masonry Wall	52	l.m.		
	Total "DIV-03" - CONCRETE WORKS				
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	7	cu.m.		
4.1.2	Concrete lintel and bond beams inclusive of formworks and Steel reinforcements, Grade 40 (For Interior Walls)	0.20	cu.m.		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
4.1.3	CHB steel reinforcements, PNS 275 (Grade 40)	603	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	65	sq.m.		
4.2.2	150mm thk (700 psi) - Interior Wall	17	sq.m.		
4.2.4	Louver blocks	5	sq.m.		
	Total "DIV-04" - MASONRY WORKS				
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and erection of structural steel roof framing including columns, main girders, beams, trusses, rafters, struts, purlins, sag rods, cross bracings with turn buckles, bolts, plates and all other incidentals to complete	1,059	kg		
	Total "DIV-05" - METAL WORKS				
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	35	sq.m.		
7.2	Insulation				
7.2.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	54	sq.m.		
7.3	Roofing and Accessories				
7.3.1	Ga.24 preformed prepainted long span single rib metal roofing inclusive of all bended materials and incidentals to complete.	54	sq.m.		
7.3.2	6mm thick fiber cement fascia board				
7.3.2.1	300mm high	10	l.m.		
7.4	Siding				
7.4.1	4.5mm thk. Fiber cement board backing on furring channel	7	sq.m.		
	Total "DIV-07"-THERMAL AND MOISTURE PROTECTION				
DIV-08	DOORS AND WINDOWS				
8.2	DOORS AND PANELS				
8.2.1	Metal Doors				
8.2.1.1	Double leaf metal swing door painted finish				
8.2.1.1.1	D-1, 1.25 x 2.10m	4	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.3	Lockset series 4000 F91, Grade 1	4	set		
8.3.3	Hinges				
8.3.3.2	Butt hinges 114mm x 114mm (4 1/2 x 4 1/2)	16	pair		
8.3.4	Door Accessories				
8.3.4.1	Door Handle				
8.3.4.3	Flushbolt (top and bottom of inactive door leaf)	4	set		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	Plain cement concrete steel trowel finish	15	sq.m		
9.1.2	Plain cement concrete steel trowel finish with groove	17	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	194	sq.m		
9.2.2	20mm groove line	13	l.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.8	6mm thk. Fiber cement ceiling board on metal frame	17	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high painted base	35	l.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Wall				
9.5.1.1	Semi-gloss paint finish	106	sq.m.		
9.5.1.2	Painting on wooden surfaces				
9.5.1.2.1	Acrylic paint finish	93	sq.m.		
9.5.3	At Ceiling				
9.5.3.1	Painting on Fiber cement board surfaces	26	sq.m.		
9.5.4	Painting on metal surfaces (metal doors, railings, gratings, grilles) - Epoxy Paint	29	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	S U M M A R Y				
3.8	PUMP ROOM AND WATER RESERVOIR				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-13	SPECIAL CONSTRUCTION		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - PUMP ROOM AND WATER RESERVOIR				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.8	PUMP ROOM AND WATER RESERVOIR				
DIV-02	SITE CONSTRUCTION				
2	SITE WORKS				
2.1.1	Building Layout	418	sq.m.		
2.1.2	Structure Excavation	300	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	16	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	133	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	284	cu.m.		
2.1.5	Subgrade Preparation	418	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	934	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm ² or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	6	cu.m.		
3.1.1.2	Suspended Beams	17	cu.m.		
3.1.1.3	Suspended Slab and ramps	13	cu.m.		
3.1.1.4	Stiffeners columns, lintel and bond beam (Exterior Wall)	1	cu.m.		
3.1.1.5	Column/Pedestal Footing	9	cu.m.		
3.1.1.6	Wall Footing	2	cu.m.		
3.1.1.7	Water Tank/Fuel Tank	326	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.1	Slab-on-grade /fill	11	cu.m.		
3.1.2	Lean concrete; 2000 psi or 13.79 Mpa				
3.1.2.1	Concrete Tank Base	57	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 60				
3.2.1.1	Columns and Pedestal	1,076	kg		
3.2.1.2	Suspended Beams	2,633	kg		
3.2.1.3	Column and Wall Footing	691	kg		
3.2.1.4	Suspended Slab	53	kg		
3.2.1.5	Water Tank/Fuel Tank	24,100	kg		
3.2.2	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.2.1	Columns and Pedestal	1,224	kg		
3.2.2.2	Suspended Beams	1,436	kg		
3.2.2.3	Suspended Slab, ramps and canopy	1,061	kg		
3.2.2.4	Slab on Grade	577	kg		
3.2.2.5	Stiffeners columns, lintel and bond beam (Exterior Wall)	143	kg		
3.2.2.6	Column and Wall Footing	124	kg		
3.2.2.7	Water Tank/Fuel Tank	9,642	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	63	sq.m.		
3.3.2	Suspended Beams	179	sq.m.		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.3.3	Suspended Slab, ramps and canopy	113	sq.m.		
3.3.4	Slab on Grade /fill	4	sq.m.		
3.3.5	Water Tank/Fuel Tank	1,393	sq.m.		
3.3.6	Stiffeners columns, lintel and bond beam (Exterior Wall)	10	sq.m.		
3.3.7	Column and Wall Footing	30	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				
3.4.1.1	At Slab-on-grade	58	l.m.		
3.4.1.2	At Masonry Wall	37	l.m.		
3.4.3	PVC Waterstop	221	l.m.		
	Total "DIV-03" - CONCRETE WORKS				
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	5	cu.m.		
4.1.2	CHB steel reinforcements, PNS 275 (Grade 40)	389	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	57	sq.m.		
	Total "DIV-04" - MASONRY WORKS				
DIV-05	METAL WORKS				
5.7	Miscellaneous Metals				
5.7.1	Caged ladder including steel rung, hoops, rail, painting and all incidentals to complete	1	set		
5.7.2	30x10mm side rail stainless steel side rail with 16mm dia SS ladder rung including SS bolts and all incidental to complete, H=5.2	4	set		
5.7.3	Manhole Cover				
5.7.3.1	0.95 x 0.95m Stainless Steel Cover	4	set		
	Total "DIV-05" - METAL WORKS				
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	418	sq.m.		
7.1.2	Waterproofing				
7.1.2.1	Elastomeric Membrane Waterproofing				
7.1.2.1.1	25 mils for Canopy and Gutter	12	sq.m.		
7.1.2.1.2	60 mils for Roof Deck	79	sq.m.		
7.1.2.2	Epoxy tank lining (@ Concrete Water Tank)	1,183	sq.m.		
7.1.2.3	Capillary Waterproofing	355	sq.m.		
	Total "DIV-07"-THERMAL AND MOISTURE PROTECTION				
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Fixed metal louver window with stainless steel insect screen painted finish				
	Pump Room and Water Reservoir				
8.1.1.1	L-1,1.5x2m	4	set		
	Sub-total "8.1" - WINDOWS				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.2	DOORS AND PANELS				
8.2.1	Metal Doors				
8.2.1.1	Double leaf swing metal louver door including door jamb with stainless steel insect screen painted finish				
	Pump Room and Water Reservoir				
8.2.1.1.1	D-1, 1.60 x 2.10m	1	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Lockset series 4000 F91, Grade 1	1	set		
8.3.3	Hinges				
8.3.3.1	Butt hinges 114mm x 114mm (4 1/2 x 4 1/2)	4	pair		
8.3.4	Door Accessories				
8.3.4.1	Flushbolt (top and bottom of inactive door leaf)	1	set		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	50mm thk. Concrete topping with 25mmø x 50 x 50mm wiremesh reinforcement	79	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	917	sq.m		
9.2.2	20mm groove line	350	l.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	Exposed Construction Painted Finish	71	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high painted base	32	l.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Floor				
9.5.1.1	Epoxy paint	60	sq.m.		
9.5.2	At Wall				
9.5.2.1	Painting on wooden surfaces				
9.5.2.1.1	Acrylic paint finish	349	sq.m.		
9.5.2.1.2	Latex paint flat finish	96	sq.m.		
9.5.3	At Ceiling				
9.5.3.1	Semi-gloss paint finish	71	sq.m.		
9.5.4	Painting on metal surfaces (metal doors, railings, gratings, grilles) - Epoxy Paint	36	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	S U M M A R Y				
3.9	CHILLED WATER PUMPHOUSE				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-13	SPECIAL CONSTRUCTION		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - CHILLED WATER PUMPHOUSE				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.9	CHILLED WATER PUMPHOUSE				
DIV-02	SITE CONSTRUCTION				
2	SITE WORKS				
2.1.1	Building Layout	436	sq.m.		
2.1.2	Structure Excavation	53	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	53	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	78	cu.m.		
2.1.3.3	Imported Soil to Fill (Borrow Embankment) - FGL to FFL	44	cu.m.		
2.1.4	Subgrade Preparation	436	sq.m.		
2.1.5	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	565	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm2 or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	7	cu.m.		
3.1.1.2	Suspended Beams	5	cu.m.		
3.1.1.3	Stiffeners columns, lintel and bond beam (Exterior Wall)	2	cu.m.		
3.1.1.4	Column/Pedestal Footing	10	cu.m.		
3.1.1.5	Wall Footing	7	cu.m.		
3.1.1.6	Equipment pad	44	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.1	Slab-on-grade /fill	16	cu.m.		
3.1.2	Lean concrete; 2000 psi or 13.79 Mpa				
3.1.2.1	Equipment pad	7	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 60				
3.2.1.1	Columns and Pedestal	888	kg		
3.2.1.2	Stiffeners columns, lintel and bond beam (Exterior Wall)	98	kg		
3.2.1.3	Column and Wall Footing	321	kg		
3.2.2	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.2.1	Columns and Pedestal	1,033	kg		
3.2.2.2	Suspended Beams	637	kg		
3.2.2.3	Slab on Grade	531	kg		
3.2.2.4	Stiffeners columns, lintel and bond beam (Exterior Wall)	216	kg		
3.2.2.5	Column and Wall Footing	516	kg		
3.2.2.6	Equipment pad	3,638	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	90	sq.m.		
3.3.2	Suspended Beams	49	sq.m.		
3.3.3	Slab on Grade /fill	9	sq.m.		
3.3.4	Stiffeners columns, lintel and bond beam (Exterior Wall)	22	sq.m.		
3.3.5	Equipment pad	50	sq.m.		
3.3.6	Column and Wall Footing	62	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.4.1.1	At Slab-on-grade	121	l.m.		
3.4.1.2	At Masonry Wall	121	l.m.		
	Total "DIV-03" - CONCRETE WORKS				
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	13	cu.m.		
4.1.2	CHB steel reinforcements, PNS 275 (Grade 40)	1,119	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	154	sq.m.		
	Total "DIV-04" - MASONRY WORKS				
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and erection of structural steel roof framing including columns, main girders, beams, trusses, rafters, struts, purlins, sag rods, cross bracings with turn buckles, bolts, plates and all other incidentals to complete	2,277	kg		
5.2	Miscellaneous Metals				
5.2.1	100mm Chainlink with 50mmø G.I Pipe Frame, Epoxy Painted Finish (refer to drawings for detailed design)	98	sq.m.		
	Total "DIV-05" - METAL WORKS				
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	131	sq.m.		
7.2	Insulation				
7.2.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	92	sq.m.		
7.3	Roofing and Accessories				
7.3.1	Ga.24 preformed prepainted long span single rib metal roofing inclusive of all banded materials and incidentals to complete.	92	sq.m.		
7.3.2	6mm thick fiber cement fascia board				
7.3.2.1	300mm high	40	l.m.		
	Total "DIV-07"-THERMAL AND MOISTURE PROTECTION				
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Fixed metal louver window with stainless steel insect screen and welded wire mesh support painted finish				
8.1.1.1	L-1, 1.50 x 2.0m	11	set		
	Sub-total "8.1" - WINDOWS				
8.2	DOORS AND PANELS				
8.2.1	Metal Doors				
8.2.1.1	Double leaf swing metal louver door including door jamb with stainless steel insect screen painted finish				
8.2.1.1.1	D-1, 1.60 x 2.10m	1	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Lockset series 4000 F91, Grade 1	1	set		
8.3.3	Hinges				
8.3.3.1	Butt hinges 114mm x 114mm (4 1/2 x 4 1/2)	4	pair		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.3.4	Door Accessories				
8.3.4.1	Flushbolt (top and bottom of inactive door leaf)	1	set		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	Plain cement concrete steel trowel finish with floor hardener	59	sq.m		
9.1.2	Plain cement concrete finish with HD floor hardener	132	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	315	sq.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	6mm thk. Fiber cement ceiling board on metal frame	20	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high painted base	33	l.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Floor				
9.5.1.1	Epoxy paint	70	sq.m.		
9.5.2	At Wall				
9.5.2.1	Painting on wooden surfaces				
9.5.2.1.1	Acrylic paint finish	211	sq.m.		
9.5.2.1.2	Latex paint flat finish	122	sq.m.		
9.5.3	At Ceiling				
9.5.3.1	Painting on Fiber cement board surfaces	32	sq.m.		
9.5.4	Painting on metal surfaces (metal doors, railings, gratings, grilles) - Epoxy Paint	213	sq.m.		
9.5.5	Painting on steel trusses				
9.5.5.1	Exposed Steel/Metal	157	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	S U M M A R Y				
3.10	FUEL STORAGE TANK				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-09	FINISHES		l.s.		
DIV-15	MECHANICAL WORKS				
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
	TOTAL COST - FUEL STORAGE TANK				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.10	FUEL STORAGE TANK				
DIV-02	SITE CONSTRUCTION				
2	SITE WORKS				
2.1.1	Building Layout	74	sq.m.		
2.1.2	Structure Excavation	404	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Gravel base; 150 mm thk	22	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	404	cu.m.		
2.1.5	Subgrade Preparation	74	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	265	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm ² or 4000 psi or 27.60 Mpa				
3.1.1.1	Water Tank/Fuel Tank	112	cu.m.		
3.1.2	Lean concrete; 2000 psi or 13.79 Mpa				
3.1.2.1	Concrete Tank Base	4	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 60				
3.2.1.1	Water Tank/Fuel Tank	13,948	kg		
3.2.2	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.2.1	Water Tank/Fuel Tank	66	kg		
3.3	Formwork				
3.3.1	Water Tank/Fuel Tank	554	sq.m.		
3.4	Concrete Accessories				
3.4.1	PVC Waterstop	142	l.m.		
	Total "DIV-03" - CONCRETE WORKS				
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and installation of misc. Plates for Tank Base Plate including bolts and all incidentals to complete	66	kg		
5.7	Miscellaneous Metals				
5.7.1	Stainless Steel ladder for Fuel Storage Tank including all incidental to complete	10	l.m.		
5.7.2	Manhole Cover				
5.7.2.1	600 mmø Steel Manhole Cover	2	set		
	Total "DIV-05" - METAL WORKS				
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Waterproofing				
7.1.1.1	Elastomeric Membrane Waterproofing				
7.1.1.1.1	@ Fuel Storage Tank	331	sq.m.		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	Total "DIV-07"-THERMAL AND MOISTURE PROTECTION				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	Plain cement concrete steel trowel finish	72	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Floor				
9.5.1.1	Epoxy paint	161	sq.m.		
9.5.2	Painting on steel trusses				
9.5.2.1	Exposed Steel/Metal	2	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	SUMMARY				
3.11	CHLORINATION HOUSE 1				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-13	SPECIAL CONSTRUCTION		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - CHLORINATION HOUSE 1				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.11	CHLORINATION HOUSE 1				
DIV-02	SITE CONSTRUCTION				
2.1	SITE WORKS				
2.1.1	Building Layout	11	sq.m.		
2.1.2	Structure Excavation	10	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	7	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	4	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	3	cu.m.		
2.1.5	Subgrade Preparation	11	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	58	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm ² or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	2	cu.m.		
3.1.1.2	Suspended Beams	1	cu.m.		
3.1.1.3	Stiffeners columns, lintel and bond beam (Exterior Wall)	1	cu.m.		
3.1.1.4	Column/Pedestal Footing	2	cu.m.		
3.1.1.5	Wall Footing	1	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.1	Slab-on-grade /fill	2	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.1.1	Columns and Pedestal	438	kg		
3.2.1.2	Suspended Beams	192	kg		
3.2.1.3	Slab on Grade	70	kg		
3.2.1.4	Stiffeners columns, lintel and bond beam (Exterior Wall)	46	kg		
3.2.1.5	Column and Wall Footing	127	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	22	sq.m.		
3.3.2	Suspended Beams	12	sq.m.		
3.3.3	Slab on Grade /fill	1	sq.m.		
3.3.4	Column and Wall Footing	10	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				
3.4.1.1	At Slab-on-grade	14	l.m.		
3.4.1.2	At Masonry Wall	45	l.m.		
	Total "DIV-03" - CONCRETE WORKS				
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	3	cu.m.		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
4.1.3	CHB steel reinforcements, PNS 275 (Grade 40)	244	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	35	sq.m.		
	Total "DIV-04" - MASONRY WORKS				
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and erection of structural steel roof framing including columns, main girders, beams, trusses, rafters, struts, purlins, sag rods, cross bracings with turn buckles, bolts, plates and all other incidentals to complete	864	kg		
	Total "DIV-05" - METAL WORKS				
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	11	sq.m.		
7.3	Insulation				
7.3.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	20	sq.m.		
7.4	Roofing and Accessories				
7.4.1	Ga.24 preformed prepainted long span single rib metal roofing inclusive of all banded materials and incidentals to complete.	20	sq.m.		
	Total "DIV-07"-THERMAL AND MOISTURE PROTECTION				
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Fixed metal louver window with stainless steel insect screen painted finish				
8.1.1.1	L-1, 2.0 x 1.80m	1	set		
8.1.1.2	L-2, 1.0 x 1.80m	1	set		
	Sub-total "8.1" - WINDOWS				
8.2	DOORS AND PANELS				
8.2.3	Metal Doors				
8.2.3.1	Double leaf swing metal louver door including door jamb with stainless steel insect screen painted finish				
8.2.3.1.1	D-1, 1.40 x 2.15m	1	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Lockset series 4000 F91, Grade 1	1	set		
8.3.2	Hinges				
8.3.2.1	Butt hinges 114mm x 114mm (4 1/2 x 4 1/2)	4	pair		
8.3.3	Door Accessories				
8.3.3.1	Flushbolt (top and bottom of inactive door leaf)	1	set		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
9.1.1	Plain cement concrete steel trowel finish	2	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	87	sq.m		
9.2.2	20mm groove line	29	l.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	6mm thk. Fiber cement ceiling board on metal frame	6	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high painted base	12	l.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Floor				
9.5.1.1	Epoxy paint	9	sq.m.		
9.5.2	At Wall				
9.5.2.1	Semi-gloss paint finish	51	sq.m.		
9.5.2.2	Painting on wooden surfaces				
9.5.2.2.1	Latex paint flat finish	36	sq.m.		
9.5.3	At Ceiling				
9.5.3.1	Painting on Fiber cement board surfaces	6	sq.m.		
9.5.4	Painting on metal surfaces (metal doors, railings, gratings, grilles) - Epoxy Paint	20	sq.m.		
9.5.5	Painting on steel trusses				
9.5.5.1	Exposed Steel/Metal	21	sq.m.		
9.5.5.2	Covered Steel/Metal	25	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	SUMMARY				
3.12	CHLORINATION HOUSE 2				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-13	SPECIAL CONSTRUCTION		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - CHLORINATION HOUSE 2				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.12	CHLORINATION HOUSE 2				
DIV-02	SITE CONSTRUCTION				
2.1	SITE WORKS				
2.1.1	Building Layout	11	sq.m.		
2.1.2	Structure Excavation	10	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	7	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	4	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	3	cu.m.		
2.1.5	Subgrade Preparation	11	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	58	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm ² or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	2	cu.m.		
3.1.1.2	Suspended Beams	1	cu.m.		
3.1.1.3	Stiffeners columns, lintel and bond beam (Exterior Wall)	1	cu.m.		
3.1.1.4	Column/Pedestal Footing	2	cu.m.		
3.1.1.5	Wall Footing	1	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.1	Slab-on-grade /fill	2	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.1.1	Columns and Pedestal	438	kg		
3.2.1.2	Suspended Beams	192	kg		
3.2.1.3	Slab on Grade	70	kg		
3.2.1.4	Stiffeners columns, lintel and bond beam (Exterior Wall)	46	kg		
3.2.1.5	Column and Wall Footing	127	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	22	sq.m.		
3.3.2	Suspended Beams	12	sq.m.		
3.3.3	Slab on Grade /fill	1	sq.m.		
3.3.4	Column and Wall Footing	10	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				
3.4.1.1	At Slab-on-grade	14	l.m.		
3.4.1.2	At Masonry Wall	45	l.m.		
	Total "DIV-03" - CONCRETE WORKS				
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	3	cu.m.		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
4.1.3	CHB steel reinforcements, PNS 275 (Grade 40)	244	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	35	sq.m.		
	Total "DIV-04" - MASONRY WORKS				
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and erection of structural steel roof framing including columns, main girders, beams, trusses, rafters, struts, purlins, sag rods, cross bracings with turn buckles, bolts, plates and all other incidentals to complete	864	kg		
	Total "DIV-05" - METAL WORKS				
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	11	sq.m.		
7.3	Insulation				
7.3.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	20	sq.m.		
7.4	Roofing and Accessories				
7.4.1	Ga.24 preformed prepainted long span single rib metal roofing inclusive of all banded materials and incidentals to complete.	20	sq.m.		
	Total "DIV-07"-THERMAL AND MOISTURE PROTECTION				
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Fixed metal louver window with stainless steel insect screen painted finish				
8.1.1.1	L-1, 2.0 x 1.80m	1	set		
8.1.1.2	L-2, 1.0 x 1.80m	1	set		
	Sub-total "8.1" - WINDOWS				
8.2	DOORS AND PANELS				
8.2.3	Metal Doors				
8.2.3.1	Double leaf swing metal louver door including door jamb with stainless steel insect screen painted finish				
8.2.3.1.1	D-1, 1.40 x 2.15m	1	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Lockset series 4000 F91, Grade 1	1	set		
8.3.2	Hinges				
8.3.2.1	Butt hinges 114mm x 114mm (4 1/2 x 4 1/2)	4	pair		
8.3.3	Door Accessories				
8.3.3.1	Flushbolt (top and bottom of inactive door leaf)	1	set		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
9.1.1	Plain cement concrete steel trowel finish	2	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	87	sq.m		
9.2.2	20mm groove line	29	l.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	6mm thk. Fiber cement ceiling board on metal frame	6	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high painted base	12	l.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Floor				
9.5.1.1	Epoxy paint	9	sq.m.		
9.5.2	At Wall				
9.5.2.1	Semi-gloss paint finish	51	sq.m.		
9.5.2.2	Painting on wooden surfaces				
9.5.2.2.1	Latex paint flat finish	36	sq.m.		
9.5.3	At Ceiling				
9.5.3.1	Painting on Fiber cement board surfaces	6	sq.m.		
9.5.4	Painting on metal surfaces (metal doors, railings, gratings, grilles) - Epoxy Paint	20	sq.m.		
9.5.5	Painting on steel trusses				
9.5.5.1	Exposed Steel/Metal	21	sq.m.		
9.5.5.2	Covered Steel/Metal	25	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	SUMMARY				
3.13A	GUARD HOUSES				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-06	WOOD AND PLASTIC		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-10	SPECIALTIES		l.s.		
DIV-13	SPECIAL CONSTRUCTION		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST PER UNIT - GUARD HOUSES				
	TOTAL COST - GUARD HOUSES (4 Units)				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.13A	GUARD HOUSES				
DIV-02	SITE CONSTRUCTION				
2	SITE WORKS				
2.1.1	Building Layout	19	sq.m.		
2.1.2	Structure Excavation	12	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	9	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	6	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	3	cu.m.		
2.1.5	Subgrade Preparation	19	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	79	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm ² or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	3	cu.m.		
3.1.1.2	Suspended Beams	2	cu.m.		
3.1.1.3	Suspended Slab and ramps	1	cu.m.		
3.1.1.4	Stiffeners columns, lintel and bond beam (Exterior Wall)	1	cu.m.		
3.1.1.5	Column/Pedestal Footing	3	cu.m.		
3.1.1.6	Wall Footing	2	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.1	Slab-on-grade /fill	3	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 60				
3.2.1.1	Columns and Pedestal	155	kg		
3.2.2	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.2.1	Columns and Pedestal	420	kg		
3.2.2.2	Suspended Beams	293	kg		
3.2.2.3	Suspended Slab, ramps and canopy	78	kg		
3.2.2.4	Slab on Grade	189	kg		
3.2.2.7	Stiffeners columns, lintel and bond beam (Exterior Wall)	53	kg		
3.2.2.9	Column and Wall Footing	181	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	27	sq.m.		
3.3.2	Suspended Beams	22	sq.m.		
3.3.3	Suspended Slab, ramps and canopy	12	sq.m.		
3.3.4	Slab on Grade /fill	5	sq.m.		
3.3.8	Stiffeners columns, lintel and bond beam (Exterior Wall)	4	sq.m.		
3.3.15	Column and Wall Footing	15	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				
3.4.1.1	At Slab-on-grade	39	l.m.		
3.4.1.2	At Masonry Wall	46	l.m.		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
Total "DIV-03" - CONCRETE WORKS					
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	3	cu.m.		
4.1.2	Concrete lintel and bond beams inclusive of formworks and Steel reinforcements, Grade 40 (For Interior Walls)	1	cu.m.		
4.1.3	CHB steel reinforcements, PNS 275 (Grade 40)	310	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	28	sq.m.		
4.2.3	100mm thk (350 psi / 2.5 N/mm2)	9	sq.m.		
Total "DIV-04" - MASONRY WORKS					
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and erection of structural steel roof framing including columns, main girders, beams, trusses, rafters, struts, purlins, sag rods, cross bracings with turn buckles, bolts, plates and all other incidentals to complete	314	kg		
Total "DIV-05" - METAL WORKS					
DIV-06	WOOD AND PLASTIC				
6.1	Finish Carpentry				
6.1.3	2640 x 400 x 750 ht., 25mm Plyboard desk with 2 layers of 20mm plyboard shelf including wood edging, wood frame, painting and accessories to complete (at Guad House)	1	lot		
Total "DIV-06" - WOOD AND PLASTIC					
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	19	sq.m.		
7.1.2	Waterproofing				
7.1.2.1	Elastomeric Membrane Waterproofing				
7.1.2.1.1	Exposed type for concrete slab and parapet wall	8	sq.m.		
7.3	Insulation				
7.3.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	16	sq.m.		
7.4	Roofing and Accessories				
7.4.1	Ga.24 preformed prepainted long span single rib metal roofing inclusive of all banded materials and incidentals to complete.	16	sq.m.		
Total "DIV-07"-THERMAL AND MOISTURE PROTECTION					
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Awning window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.1.1	W-3, 0.70 x 1.20m	1	set		
8.1.2	Sliding window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.2.1	W-2, 1.20 x 1.20m	3	set		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.1.3	Acrylic sheet on aluminum powder coated frame				
8.1.3.1	W-1, 3.0 x 1.20m	1	set		
	Sub-total "8.1" - WINDOWS				
8.2	DOORS AND PANELS				
8.2.1	Aluminum Doors				
8.2.1.1	Single leaf powder coated aluminum door with 6mm thk. Clear glass including push and pull bar (as per manufacturer's standard)				
8.2.1.1.1	D-1, 0.65 x 2.05m	1	set		
8.2.2	Wood Doors				
8.2.2.1	Single leaf flush hollow core plywood door painted finish				
8.2.2.1.1	D-3, 0.40 x 2.15m	1	set		
8.2.3	PVC/Plastic Doors				
8.2.3.1	PVC Flush door with bottom louver including hinges and privacy lockset				
8.2.3.1.1	D-2, 0.60 x 2.15m	1	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Lockset series 4000 F82, Grade 1	1	set		
8.3.1.2	DEADLOCK				
8.3.1.2.1	Cylinder deadlock F-16, Grade 1	1	set		
8.3.2	Closer				
8.3.2.1	Overhead Concealed Closer	1	set		
8.3.3	Hinges				
8.3.3.1	Butt hinges 100mm x 100mm (4 x 4)	2	pair		
8.3.3.2	Center pivot (top & bottom)	1	pair		
8.3.4	Door Accessories				
8.3.4.1	Door Handle				
8.3.4.1.1	Push & pull bars (door manufacturer's standard)	2	set		
8.3.4.2	Threshold				
8.3.4.2.1	Aluminum threshold	1	set		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	Plain cement concrete steel trowel finish	8	sq.m		
9.1.2	Homogeneous Vinyl Floor Tiles, 300 x 300 x 3 mm thk	8	sq.m		
9.1.3	300 x 300 Unglazed Ceramic Tiles (including mortar bed)	2	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	83	sq.m		
9.2.2	20mm groove line	17	l.m		
9.2.3	300 x 300mm Glazed ceramic wall tiles (including mortar bed)	8	sq.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	12mm thk. Ordinary Gypsum Board on metal frame	8	sm		
9.3.2	12mm thk. Moisture Resistant Gypsum Board on metal frame	2	sm		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
9.3.3	6mm thk. Fiber cement ceiling board on metal frame	5	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high Vinyl base board	17	l.m.		
9.4.2	300 x 300mm high Glazed Ceramic Tile	3	sq.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Wall				
9.5.1.1	Semi-gloss paint finish	36	sq.m.		
9.5.1.2	Painting on wooden surfaces				
9.5.1.2.1	Acrylic paint finish	48	sq.m.		
9.5.3	At Ceiling				
9.5.3.1	Painting on Fiber cement board surfaces	5	sq.m.		
9.5.3.2	Painting on Gypsum board surfaces	9	sq.m.		
9.5.4	Painting on wood doors	4	sq.m.		
9.5.5	Painting on steel trusses				
9.5.5.1	Covered Steel/Metal	21	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				
DIV-10	SPECIALTIES				
10.1	6mm thick Facial mirror on 6mm thick marine plywood backing inclusive all incidentals to complete				
10.1.1	500 x 800mm	1	set		
	Total "DIV-10" - SPECIALTIES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	SUMMARY				
3.13B	GUARD HOUSE with SEPTIC TANK				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-06	WOOD AND PLASTIC		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-10	SPECIALTIES		l.s.		
DIV-13	SPECIAL CONSTRUCTION		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - GUARD HOUSE with SEPTIC TANK				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.13B	GUARD HOUSE with SEPTIC TANK				
DIV-02	SITE CONSTRUCTION				
2	SITE WORKS				
2.1.1	Building Layout	19	sq.m.		
2.1.2	Structure Excavation	12	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	9	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	6	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	3	cu.m.		
2.1.5	Subgrade Preparation	19	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	79	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm ² or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns and Pedestal	3	cu.m.		
3.1.1.2	Suspended Beams	2	cu.m.		
3.1.1.3	Suspended Slab and ramps	1	cu.m.		
3.1.1.4	Stiffeners columns, lintel and bond beam (Exterior Wall)	1	cu.m.		
3.1.1.5	Column/Pedestal Footing	3	cu.m.		
3.1.1.6	Wall Footing	2	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.1	Slab-on-grade /fill	3	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 60				
3.2.1.1	Columns and Pedestal	155	kg		
3.2.2	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.2.1	Columns and Pedestal	420	kg		
3.2.2.2	Suspended Beams	293	kg		
3.2.2.3	Suspended Slab, ramps and canopy	78	kg		
3.2.2.4	Slab on Grade	189	kg		
3.2.2.7	Stiffeners columns, lintel and bond beam (Exterior Wall)	53	kg		
3.2.2.9	Column and Wall Footing	181	kg		
3.3	Formwork				
3.3.1	Columns and Pedestal	27	sq.m.		
3.3.2	Suspended Beams	22	sq.m.		
3.3.3	Suspended Slab, ramps and canopy	12	sq.m.		
3.3.4	Slab on Grade /fill	5	sq.m.		
3.3.8	Stiffeners columns, lintel and bond beam (Exterior Wall)	4	sq.m.		
3.3.15	Column and Wall Footing	15	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				
3.4.1.1	At Slab-on-grade	39	l.m.		
3.4.1.2	At Masonry Wall	46	l.m.		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
Total "DIV-03" - CONCRETE WORKS					
DIV-04	MASONRY WORKS				
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	3	cu.m.		
4.1.2	Concrete lintel and bond beams inclusive of formworks and Steel reinforcements, Grade 40 (For Interior Walls)	1	cu.m.		
4.1.3	CHB steel reinforcements, PNS 275 (Grade 40)	310	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	28	sq.m.		
4.2.3	100mm thk (350 psi / 2.5 N/mm2)	9	sq.m.		
Total "DIV-04" - MASONRY WORKS					
DIV-05	METAL WORKS				
5.1	Fabrication, delivery and erection of structural steel roof framing including columns, main girders, beams, trusses, rafters, struts, purlins, sag rods, cross bracings with turn buckles, bolts, plates and all other incidentals to complete	314	kg		
Total "DIV-05" - METAL WORKS					
DIV-06	WOOD AND PLASTIC				
6.1	Finish Carpentry				
6.1.3	2640 x 400 x 750 ht., 25mm Plyboard desk with 2 layers of 20mm plyboard shelf including wood edging, wood frame, painting and accessories to complete (at Guad House)	1	lot		
Total "DIV-06" - WOOD AND PLASTIC					
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	19	sq.m.		
7.1.2	Waterproofing				
7.1.2.1	Elastomeric Membrane Waterproofing				
7.1.2.1.1	Exposed type for concrete slab and parapet wall	8	sq.m.		
7.3	Insulation				
7.3.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	16	sq.m.		
7.4	Roofing and Accessories				
7.4.1	Ga.24 preformed prepainted long span single rib metal roofing inclusive of all banded materials and incidentals to complete.	16	sq.m.		
Total "DIV-07"-THERMAL AND MOISTURE PROTECTION					
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Awning window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.1.1	W-3, 0.70 x 1.20m	1	set		
8.1.2	Sliding window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.2.1	W-2, 1.20 x 1.20m	3	set		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.1.3	Acrylic sheet on aluminum powder coated frame				
8.1.3.1	W-1, 3.0 x 1.20m	1	set		
	Sub-total "8.1" - WINDOWS				
8.2	DOORS AND PANELS				
8.2.1	Aluminum Doors				
8.2.1.1	Single leaf powder coated aluminum door with 6mm thk. Clear glass including push and pull bar (as per manufacturer's standard)				
8.2.1.1.1	D-1, 0.65 x 2.05m	1	set		
8.2.2	Wood Doors				
8.2.2.1	Single leaf flush hollow core plywood door painted finish				
8.2.2.1.1	D-3, 0.40 x 2.15m	1	set		
8.2.3	PVC/Plastic Doors				
8.2.3.1	PVC Flush door with bottom louver including hinges and privacy lockset				
8.2.3.1.1	D-2, 0.60 x 2.15m	1	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Lockset series 4000 F82, Grade 1	1	set		
8.3.1.2	DEADLOCK				
8.3.1.2.1	Cylinder deadlock F-16, Grade 1	1	set		
8.3.2	Closer				
8.3.2.1	Overhead Concealed Closer	1	set		
8.3.3	Hinges				
8.3.3.1	Butt hinges 100mm x 100mm (4 x 4)	2	pair		
8.3.3.2	Center pivot (top & bottom)	1	pair		
8.3.4	Door Accessories				
8.3.4.1	Door Handle				
8.3.4.1.1	Push & pull bars (door manufacturer's standard)	2	set		
8.3.4.2	Threshold				
8.3.4.2.1	Aluminum threshold	1	set		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	Plain cement concrete steel trowel finish	8	sq.m		
9.1.2	Homogeneous Vinyl Floor Tiles, 300 x 300 x 3 mm thk	8	sq.m		
9.1.3	300 x 300 Unglazed Ceramic Tiles (including mortar bed)	2	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	83	sq.m		
9.2.2	20mm groove line	17	l.m		
9.2.3	300 x 300mm Glazed ceramic wall tiles (including mortar bed)	8	sq.m		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	12mm thk. Ordinary Gypsum Board on metal frame	8	sm		
9.3.2	12mm thk. Moisture Resistant Gypsum Board on metal frame	2	sm		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
9.3.3	6mm thk. Fiber cement ceiling board on metal frame	5	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100mm high Vinyl base board	17	l.m.		
9.4.2	300 x 300mm high Glazed Ceramic Tile	3	sq.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Wall				
9.5.1.1	Semi-gloss paint finish	36	sq.m.		
9.5.1.2	Painting on wooden surfaces				
9.5.1.2.1	Acrylic paint finish	48	sq.m.		
9.5.3	At Ceiling				
9.5.3.1	Painting on Fiber cement board surfaces	5	sq.m.		
9.5.3.2	Painting on Gypsum board surfaces	9	sq.m.		
9.5.4	Painting on wood doors	4	sq.m.		
9.5.5	Painting on steel trusses				
9.5.5.1	Covered Steel/Metal	21	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				
DIV-10	SPECIALTIES				
10.1	6mm thick Facial mirror on 6mm thick marine plywood backing inclusive all incidentals to complete				
10.1.1	500 x 800mm	1	set		
	Total "DIV-10" - SPECIALTIES				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	SUMMARY				
3.14	DOTC-CAAP QUARTER				
DIV-02	SITE CONSTRUCTION		l.s.		
DIV-03	CONCRETE WORKS		l.s.		
DIV-04	MASONRY WORKS		l.s.		
DIV-05	METAL WORKS		l.s.		
DIV-06	WOOD AND PLASTIC		l.s.		
DIV-07	THERMAL AND MOISTURE PROTECTION		l.s.		
DIV-08	DOORS AND WINDOWS		l.s.		
DIV-09	FINISHES		l.s.		
DIV-10	SPECIALTIES		l.s.		
DIV-12	FURNISHINGS		l.s.		
DIV-15	MECHANICAL WORKS				
15.1	PLUMBING WORKS		l.s.		
15.2	VENTILATING AND AIRCONDITIONING WORKS		l.s.		
DIV 16	ELECTRICAL WORKS		l.s.		
	TOTAL COST - DOTC-CAAP QUARTER				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
3.14	DOTC-CAAP QUARTER				
DIV-02	SITE CONSTRUCTION				
2.1	SITE WORKS				
2.1.1	Building Layout	508	sq.m.		
2.1.2	Structure Excavation	305	cu.m.		
2.1.3	Backfilling and filling				
2.1.3.1	Backfill excavations with suitable excavated materials	182	cu.m.		
2.1.3.2	Gravel base; 150 mm thk	77	cu.m.		
2.1.4	Soil Disposal				
2.1.4.1	Remove surplus excavated material from site	88	cu.m.		
2.1.5	Subgrade Preparation	508	sq.m.		
2.1.6	Anti-termite treatment to surfaces of ground and sides and bottoms of excavations	508	sq.m.		
	Sub-total "2.1" - SITE WORKS				
DIV-03	CONCRETE WORKS				
3.1	Cast-In-Place Structural Concrete				
3.1.1	Reinforced concrete; 280 kg/cm ² or 4000 psi or 27.60 Mpa				
3.1.1.1	Columns	23	cu.m.		
3.1.1.2	Suspended Beams	74	cu.m.		
3.1.1.3	Footing Tie Beam	50	cu.m.		
3.1.1.4	Suspended Slab	77	cu.m.		
3.1.1.5	Concrete Gutter (slab & parapet wall)	43	cu.m.		
3.1.1.6	Column/Wall Footing	38	cu.m.		
3.1.2	Reinforced concrete; 3000 psi or 21 Mpa				
3.1.2.1	Slab-on-grade /fill	77	cu.m.		
3.2	Reinforcement in concrete				
3.2.1	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 60				
3.2.1.1	Columns	7,192	kg		
3.2.1.2	Suspended Beams	10,881	kg		
3.2.1.3	Column and Wall Footing	3,258	kg		
3.2.1.4	Footing Tie Beam	6,962	kg		
3.2.1.5	Suspended Slab	5,313	kg		
3.2.1.6	Concrete Gutter (slab & parapet wall)	8,085	kg		
3.2.2	Steel bar reinforcement including cutting and bending, links, stirrups, binders, and tie wires, etc; grade 40				
3.2.2.1	Slab on Grade	4,902	kg		
3.3	Formwork				
3.3.1	Columns	203	sq.m.		
3.3.2	Suspended Beams	499	sq.m.		
3.3.3	Suspended Slab	509	sq.m.		
3.3.4	Concrete Gutter (slab & parapet wall)	563	sq.m.		
3.3.5	Footing Tie Beam	284	sq.m.		
3.4	Concrete Accessories				
3.4.1	Expansion joint with sealant; pre-formed type; 12 x 200mm				
3.4.1.1	At Slab-on-grade	168	l.m.		
	Total "DIV-03" - CONCRETE WORKS				
DIV-04	MASONRY WORKS				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
4.1	Accessories				
4.1.1	Concrete Grout, 2000 psi	53	cu.m.		
4.1.2	Concrete lintel and bond beams inclusive of formworks and Steel reinforcements, Grade 40 (For Interior Walls)	18	cu.m.		
4.1.3	CHB steel reinforcements, PNS 275 (Grade 40)	3,307	kg		
4.2	CHB				
4.2.1	150mm thk (1000 psi) - Exterior Wall	332	sq.m.		
4.2.2	100mm thk (350 psi / 2.5 N/mm2)	549	sq.m.		
	Total "DIV-04" - MASONRY WORKS				
DIV-05	METAL WORKS				
5.7	Steel Railings				
5.7.1	38mm dia. Stainless Steel Stair rail with vertical and horizontal members including all incidentals to complete (supply and install)	45	l.m.		
	Total "DIV-05" - METAL WORKS				
DIV-06	WOOD AND PLASTIC				
6.1	Finish Carpentry				
6.1.1	Sink Cabinet, 20mm thk. Plywood in wood frame including hardware, expansion bolts, galvanized steel frame, shelves, edging, duco paint and all incidentals to complete at 6F Pantry (L = 3.60m; W = 0.60m; H = 0.90m)	2	set		
	Total "DIV-06" - WOOD AND PLASTIC				
DIV-07	THERMAL AND MOISTURE PROTECTION				
7.1	Dampproofing and Waterproofing				
7.1.1	Dampproofing vapor barriers, 1 layer 6 mils thick @ Slab on Grade	510	sq.m.		
7.1.2	Waterproofing				
7.1.2.1	Elastomeric Membrane Waterproofing				
7.1.2.1.1	60 mils for Roof Deck & Gutter	785	sq.m.		
7.3	Insulation				
7.3.1	Roof Insulation - 50mm thk Mineral Wool Insulation with two sided aluminum including chicken wire support and other consumable accessories to complete	785	sq.m.		
	Total "DIV-07"-THERMAL AND MOISTURE PROTECTION				
DIV-08	DOORS AND WINDOWS				
8.1	WINDOWS				
8.1.1	Sliding window in Aluminum Powder coated frame with 6mm thk clear glass and complete accessories				
8.1.1.1	2.40 x 1.20m	20	set		
8.1.1.2	0.76 x 0.59m	14	set		
	Sub-total "8.1" - WINDOWS				
8.2	DOORS AND PANELS				
8.2.1	Metal Doors				
8.2.1.1	Single leaf hollow metal door, 1 hour fire rated painted finish				
8.2.1.1.1	D-1, 0.90 x 2.10m	20	set		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
8.2.2	PVC/Plastic Doors				
8.2.2.1	PVC Flush door with bottom louver including hinges and privacy lockset				
8.2.2.1.1	D-12, 0.70 x 2.10m	14	set		
	Sub-total "8.2" - DOORS AND PANELS				
8.3	HARDWARES				
8.3.1	LOCKSET				
8.3.1.1	Lockset series 4000 F82, Grade 1	34	set		
8.3.1.3	Lockset series 4000 F91, Grade 1	34	set		
8.3.2	Closer				
8.3.2.1	Overhead door closer CO 2012	20	set		
8.3.3	Hinges				
8.3.3.1	Butt hinges 100mm x 100mm (4 x 4)	68	pair		
	Sub-total "8.3" - HARDWARES				
	Total "DIV-08" - DOORS AND WINDOWS				
DIV-09	FINISHES				
9.1	FLOOR FINISHES				
9.1.1	Plain cement concrete steel trowel finish (to receive vinyl flooring)	151	sq.m		
9.1.2	Homogeneous Vinyl Floor Tiles, 300 x 300 x 3 mm thk	151	sq.m		
9.1.3	600 x 600 Granite Tiles (including mortar bed)	3	sq.m		
9.1.4	600 x 600 Homogeneous Polished Tiles (including mortar bed)	111	sq.m		
9.1.5	400 x 400 Non-skid Homogeneous Tiles (including mortar bed)	193	sq.m		
9.1.6	300 x 300 Unglazed Ceramic Tiles (including mortar bed)	52	sq.m		
	Sub-total "9.1" - FLOOR FINISHES				
9.2	WALL FINISHES				
9.2.1	Plain cement plaster wall Painted Finish	1,642	sq.m		
9.2.2	300 x 300mm Glazed ceramic wall tiles (including mortar bed)	242	sq.m		
9.2.3	9mm thk. Fiber cement board double face wall partition panel on light weight metal frame	112	sq.m		
9.2.4	Exposed Construction Painted Finish	339	sm		
	Sub-total "9.2" - WALL FINISHES				
9.3	CEILING FINISHES				
9.3.1	12mm thk. Ordinary Gypsum Board on metal frame	192	sm		
9.3.2	Exposed Construction Painted Finish	262	sm		
9.3.3	4.5mm thk. Fiber cement ceiling board on metal frame	52	sm		
	Sub-total "9.3" - CEILING FINISHES				
9.4	BASE BOARD FINISHES				
9.4.1	100 x 400mm Non-skid Homogeneous Tiles	388	sq.m.		
	Sub-total "9.4" - BASE BOARD FINISHES				
9.5	PAINTING WORKS				
9.5.1	At Wall				
9.5.1.1	Semi-gloss paint finish	1,320	sq.m.		
9.5.1.2	Painting on wooden surfaces				
9.5.1.2.1	Acrylic paint finish	339	sq.m.		
9.5.1.2.2	Latex paint flat finish	224	sq.m.		
9.5.3	At Ceiling				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

PAY ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
9.5.3.1	Semi-gloss paint finish	419	sq.m.		
9.5.3.2	Painting on Fiber cement board surfaces	52	sq.m.		
9.5.3.3	Painting on Gypsum board surfaces	192	sq.m.		
9.5.4	Painting on metal surfaces (metal doors, railings, gratings, grilles) - Epoxy Paint	76	sq.m.		
	Sub-total "9.5" - PAINTING WORKS				
	Total "DIV-09" - FINISHES				
DIV-10	SPECIALTIES				
10.1	6mm thick Facial mirror on 6mm thick marine plywood backing inclusive all incidentals to complete				
10.1.1	2200x1000mm	2	set		
10.1.2	600 x 800mm	14	set		
10.2	Countertops				
10.2.1	Monolithic Solid Surface Countertop	12	sq.m		
	Total "DIV-10" - SPECIALTIES				
DIV-12	FURNISHINGS				
12.1	FURNISHINGS	1	lot		
	Total "DIV-12" - FURNISHINGS				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
PART A FACILITIES FOR THE ENGINEER					
A.1(a)	Rental and Maintenance of Office for the Engineer's Representative	24	mo		
A.1(b)	Maintenance of Field Office and Staff House for the Engineer	24	mo		
A.1(c)	Provide and Maintain Field Office for the Engineer	1	ls		
A.1(d)	Furnish Equipment, Furnitures, Fixtures, Office Equipment and Appliances for the Field Office and Staff House for the Engineer and Engineer's Representative (Schedule B)	1	ls		
A.2(a)	Provide, Operate and Maintain Communication Equipment for the Engineer and Engineer's Representative (Schedule C)	24	mo		
A.3(a)	Provide Supplies and Consumable for Field Office, Laboratory and Staff House for the Engineer and Engineer's Representative (Schedules D)	24	mo		
A.4(a)	Provide 4W D Pick-up Type, Double Crew Cab, Service Vehicle Brandnew for the Engineer and Engineer's Representative (Rental Basis)	4	veh-mo		
A.4(b)	Operate and Maintain 4W D Pick-up Type, Double Crew Cab, Service Vehicle for the Engineer and Engineer's Representative	96	veh-mo		
A.5(a)	Progress Photographs	24	mo		
Sub - Total -PART A FACILITIES FOR THE ENGINEER					
PART B OTHER GENERAL REQUIREMENTS					
B.1	Project Signboard	2	set		
B.2	Construction Health and Safety	24	mo.		
B.3	Environmental and Social Safeguard	24	mo.		
Sub - Total -PART B OTHER GENERAL REQUIREMENTS					
Total					

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT
Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATE D QTY	UNIT	UNIT COST	TOTAL COST
	SUMMARY				
2.0	CIVIL WORKS - LANDSIDE (Earthworks, Water Supply, Security Fence and Gates)				
Part C	Earthworks				
Part H	Miscellaneous Structures (Security Fence and Gates)				
2.1	Water Supply Wells				
	TOTAL - LANDSIDE				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATE D QTY	UNIT	UNIT COST	TOTAL COST
2.0	CIVIL WORKS - LANDSIDE (Earthworks, Security Fence and Gates)				
Part C	Earthworks				
102(1)	Unsuitable Excavation	36,778.00	cu.m.		
100(4)	Individual Removal Trees, Large	3.00	ea.		
104(1)a	Embankment from Site Excavation	3,804.00	cu.m.		
104(1)c	Embankment from Borrow Source (Quarry Source is 10 km. from the site)	277,756.00	cu.m.		
610	Sodding	1,565.00	sq.m		
	Sub-total - Part C Earthworks				
Part H	Miscellaneous Structures (Security Fence and Gates)				
604(5)	Security fence Chainlink fence with zocalo with 5-barbed wire including excavation, backfill, gravel base, concreting, masonry, finishing works and all incidentals to complete	1,091.00	l.m.		
604(4)a	Airport Entrance Road 2 Gate with fence with 20mm x 20mm Rust Proof square Bars on 50mmx 100mm Rust Proof Tubular Bar Frame, includes Concrete Post, H=2.4m				
604(4)a	Vehicular Gate, 12.80m W x 2.40m H	1.00	set		
604(4)a	Pedestrian Gate, 1.0m W x 2.10m H	1.00	set		
604(4)a	Terminal Road A Main Steel Gate with 20mm x 20mm Rust Proof square Bars on 50mmx 100mm Rust Proof Tubular Bar Frame, includes Concrete Post, H=2.4m				
604(4)a	Vehicular Gate, 7.50m W x 2.40m H	1.00	set		
604(4)a	Pedestrian Gate, 1.0m W x 2.10m H	2.00	set		
604(4)a	Terminal Road D Main Steel Gate with 20mm x 20mm Rust Proof square Bars on 50mmx 100mm Rust Proof Tubular Bar Frame, includes Concrete Post, H=2.4m				
604(4)a	Vehicular Gate, 7.50m W x 2.40m H	1.00	set		
604(4)b	Secondary Steel Gate with 20mm x 20mm Rust Proof square bars on 50mm x 100mm Rust Proof Tubular Bar Frame, H=2.4m				
604(4)a	Vehicular Gate, 4.90m +5.20m W x 2.40m H	1.00	set		
604(4)a	Pedestrian Gate, 1.0m W x 2.10m H	2.00	set		
	Sub-total - Part H Miscellaneous Structures (Security Fence and Gates)				
3.0	Water Supply Wells				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT
Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATE D QTY	UNIT	UNIT COST	TOTAL COST
3.1	Deepwell Development, D=80 m, Borehole Dia = 350mm Dia, Well Casing = 200mm Dia. with Hyphochlorinator system (includes drilling, steel casing, sump pipe, submersible pump, stainless steel wirewound screens, gravel fill pack, gravel fill pipe, water level sounding pipe, steel plate cover and other items to complete the work.)	2.00	Set		
	Sub-total - Water Supply Wells				
	TOTAL 2.0 CIVIL WORKS - LANDSIDE (Earthworks, Security Fence and Gates)				

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT

Daraga, Albay

BILL OF QUANTITIES

BILL OF QUANTITIES - MECHANICAL WORKS: PASSENGER TERMINAL BUILDING

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	SPECIAL CONSTRUCTION				
1.1	Airconditioning System				
1.2	Ventilation System				
13.2	Fire Protection System				
13.1	Building Management System				
1.5	Fuel Oil & Exhaust System				
1.6	Testing and Commissioning				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS: CARGO TERMINAL BUILDING

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS : CRASH FIRE RESCUE BUILDING

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS : MAINTENANCE BUILDING

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT

Daraga, Albay

BILL OF QUANTITIES

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS : POWER HOUSE BUILDING

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS : AIR TRAFFIC CONTROL BUILDING

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
13.1	Building Management System				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS : PUMP HOUSE & WATER TANK

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT

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BILL OF QUANTITIES

13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS : GUARD HOUSE 1

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS : GUARD HOUSE 2

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS : CHILLED WATER PUMP HOUSE BUILDING

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT

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BILL OF QUANTITIES

BILL OF QUANTITIES - MECHANICAL WORKS : CHLORINATION 1

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS : CHLORINATION 2

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT

Daraga, Albay

BILL OF QUANTITIES

BILL OF QUANTITIES - MECHANICAL WORKS : DVOR DME BUILDING

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	DIRECT UNIT COST	TOTAL CONSTRUCTION COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS : ILS GLIDE PATH BUILDING

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	DIRECT UNIT COST	TOTAL CONSTRUCTION COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS : LOCALIZER ANTENNA SHELTER

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	DIRECT UNIT COST	TOTAL CONSTRUCTION COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				

BILL OF QUANTITIES - MECHANICAL WORKS : FUEL STORAGE TANK

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT

Daraga, Albay

BILL OF QUANTITIES

ITEM NO.	DESCRIPTION				
(1)	(2)				
13	SPECIAL CONSTRUCTION				
1.1	Airconditioning System				
1.5	Fuel Oil & Exhaust System				
1.6	Testing and Commissioning				
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
1.1	Airconditioning System				
1.2	Ventilation System				
1.3	Fire Protection System				
1.4	Building Management System				
1.5	Fuel Oil & Exhaust System				
1.6	Testing and Commissioning				
	Total				
1.1	Air Conditioning System				
	Equipment, see schedule for specifications (to include all other necessary works to make the unit complete and operational.)				
15856(1)a	Air handling Unit				
	AHU-1 : Horizontal Draw Thru, Vertical Upblast, 47 TR	1	set/s		
	AHU-2A : Horizontal Draw Thru, Vertical Upblast, 12 TR	1	set/s		
	AHU-2B : Horizontal Draw Thru, Vertical Upblast, 15 TR	1	set/s		
	AHU-3 : Horizontal Draw Thru, Vertical Upblast, 40 TR	1	set/s		
	AHU-4 : Horizontal Draw Thru, Vertical Upblast, 60 TR	1	set/s		
	AHU-5 : Horizontal Draw Thru Vertical Upblast, 50 TR	1	set/s		
	AHU-6 : Horizontal Draw Thru Vertical Upblast, 30 TR	1	set/s		
	AHU-7 : Horizontal Draw Thru Vertical Upblast, 30 TR	1	set/s		
	AHU-8 : Vertical Draw Thru Vertical Upblast, 20 TR	1	set/s		
	PAHU-04 : 70 TR	1	set/s		
	PAHU-01 : 88 TR	1	set/s		
	PAHU-02 : 43 TR	1	set/s		
	PAHU-03 : 70 TR	1	set/s		
15653(1)a	DX split type Air-conditioning Unit complete with support, hangers, base and all necessary accessories as specified in the Mechanical Drawings and Technical Specifications.				
	FCU / ACCU - 1: 3.33TR, Ceiling Cassette	3	set/s		
	FCU / ACCU - 5A - B: 2.0 TR, Ceiling Cassette	2	set/s		
	FCU / ACCU - 6: 2.5TR, Ceiling Cassette	1	set/s		
	FCU-9/ACCU-9: Wall Mounted DX, Indoor Free Blow 2 TR		set/s		
	FCU-14 A-C : Ceiling Cassette Type, 1.33 TR	3	set/s		
	FCU-14 D-1 : Ceiling Cassette Type, 3.33 TR	6	set/s		
	FCU-15 A-E : Ceiling Concealed Ducted Type, 7.48 TR	5	set/s		
15653(1)a	Split Type AC Units				
	FCU / ACCU - 5A - B: 2.0 TR, Ceiling Cassette	2	set/s		
	FCU / ACCU - 6: 2.5TR, Ceiling Cassette	1	set/s		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
15653(1)a	Multi-Split type Air-cooled Condensing Units; complete with all necessary accessories, support/hangers/connections, base as specified in the Mechanical Drawings and Technical Specifications.				
	Variable Refrigerant Volume Type; capacity 5.0TR	3	set/s		
15653(1)a	Window Type AC- 3:A - B, 1.07 TR				
	WAC-1:Window Type AirConditioner w/ three speed Fan Switch and other standard accessories 1.07 TR, 220V, 1ø, 60Hz		set/s		
	WAC-1C: Window Type Air Conditioner with three speed Fan Switch and other standard accessories 1.07 TR, 220v, 1ø, 60HZ		set/s		
	WAC - 2A-B: Window Type Air Conditioner with three speed Fan Switch and other standard accessories 1.9 TR, 220v, 1Ø, 60Hz		set/s		
15856(2)c	Fan Coil Unit (Chilled Water Type)				
	FCU-1, Ceiling cassette type, 1.5TR, 220V, 1PH, 60Hz, & std accessories		set/s		
	FCU-2, Ceiling cassette type, 2.0TR, 220V, 1PH, 60Hz, & std accessories		set/s		
	FCU-3, Ceiling cassette type, 2.0TR, 220V, 1PH, 60Hz, & std accessories		set/s		
	FCU-4, Ceiling cassette type, 4.0TR, 220V, 1PH, 60Hz, & std accessories		set/s		
	FCU-7, Ceiling cassette type, 3.0TR, 220V, 1PH, 60Hz, & std accessories		set/s		
	FCU-8, Ceiling suspended type, 2.0TR, 220V, 1PH, 60Hz, & std accessories		set/s		
	FCU-11, Ceiling suspended type, 2.0TR, 220V, 1PH, 60Hz, & std accessories		set/s		
	FCU-12, Ceiling suspended type, 2.0TR, 220V, 1PH, 60Hz, & std accessories		set/s		
	FCU-13, Ceiling suspended type, 3.0TR, 220V, 1PH, 60Hz, & std accessories		set/s		
	FCU-14D-1, Ceiling cassette type, 4.0TR, 220V, 1PH, 60Hz, & std accessories		set/s		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	FCU-16, Ceiling concealed ducted type, 3.28TR,220V,1PH,60Hz, & std accessories		set/s		
	SPU- 1: Single Package Unit, Vertical Upblast, 20 TR		set/s		
	CH-1 -3: Air-Cooled Screw Chiller 432TR		set/s		
	PCHWP 1A - C Primary<: End Suction Centrifugal Pump. Single stage, 536 gpm X 11.2 M TDH		set/s		
	SCHWP 2A - C: Secondary End Suction Centrifugal Pump, Single Stage, 536 gpm x 40 TDH		set/s		
	AS-1: Centrifugal Air Separator, 1072 gpm, 610 mm dia.x 1367 mm ht		set/s		
	ET-1: Expansion Tank, Pressurized Vertical Tank, 77.3 gal cap.610 mm Ø x 1292 mm ht		set/s		
	Above ground horizontal storage tank, ms plate 6 mm (1/4") thick complete with inlet/Outlet, fill line, drain, overflow connections, level gauge, access manhole, vent, tank shall be treated with anti-corrossion. Dimension : 3,000 mm ø x 6,000 mm SL		set/s		
15200(3)a	Flexible Duct Connector		l.m.		
	200mm dia. Flexible duct connector		l.m.		
	250mm dia. Flexible duct connector		l.m.		
	300mm dia. Flexible duct connector		l.m.		
15895(1)a	Galvanized Steel Duct including support				
	Ga 26	34.23	sq.m.		
	Ga 24	1299.39	sq.m.		
	Ga 22	1416.78	sq.m.		
	Ga 20	828.81	sq.m.		
15250(1)a	Duct Insulation, 50 mm thick, rigid minearl fiber 48kg/ m3 density	3579.21	sq.m.		
	Duct Insulation, 50 mm thick, rigid minearl fiber 48kg/ m3 density with aluminum foil		sq.m.		
15250(1)a	Acoustical duct liner, 25 mm thk flexible unicellular rubber	122	sq.m.		
15895(3)a	Variable Air Volume Unit				
	VAV 1A-D, 500 cfm	4	set/s		
	VAV 2, 1400 cfm	1	set/s		
	VAV 3 400 cfm	1	sets		
	VAV -4 2346 cfm		sets		
	VAV -5 2330 cfm		sets		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	VAV -6 796 cfm		sets		
	VAV -7 584 cfm		sets		
	VAV -8 2370 cfm		sets		
	VAV -9 3777 cfm		sets		
	VAV -10 3684 cfm		sets		
	VAV -11 1556 cfm		sets		
	VAV -12 2924 cfm		sets		
	VAV -13 1868 cfm		sets		
	VAV -14 846 cfm		sets		
15895(2)a	Supply Air Grille				
	1050 x 150	18	set/s		
	750 x 450	2	set/s		
	550 x 150	2	set/s		
15895(2)a	Return Air Grille /Register				
	1500x 1200		set/s		
	800x 200		set/s		
	1200 x 1050	1	set/s		
	1050 x 450	31	set/s		
	750 x 400		set/s		
	600 x 400		set/s		
	600 x 250	1	set/s		
	550 x 550	7	set/s		
	550 x 250		set/s		
	450 x 350		set/s		
	450 x 250	3	set/s		
	450 x 150		set/s		
	300 x 150		set/s		
15895(2)a	Supply Ceiling Diffuser				
	450 x 450	4	set/s		
	400 x 400	45	set/s		
	375 x 375	96	set/s		
	300 x 300	35	set/s		
	Exhaust Air Duct				
	200mm dia		l.m.		
	150 mm dia		l.m.		
	Hot Air Duct (250mm dia)		l.m.		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
15895(2)a	Volume Damper				
	750 x 300	7	ea.		
	500 x 300	7	ea.		
	450 x 400		ea.		
	450 x 350		ea.		
	450 x 250	10	ea.		
	400 x 200	6	ea.		
	350 x 350		ea.		
	350 x 200	4	ea.		
	300 x 300		ea.		
	300 x 250		ea.		
	300 x 200		ea.		
	300 x 150		ea.		
	150 x 100		ea.		
15895(2)a	Fire and Smoke Damper				
	1950 x 650	3	ea.		
	1750 x 650	1	ea.		
	1500 x 500		ea.		
	1300 x 500		ea.		
	1250 x 500		ea.		
	850 x 500		ea.		
15895(2)a	Motorized Smoke Damper				
	1850 x 650	1	ea.		
	1850 x 550	1	ea.		
	1600 x 600	1	ea.		
	1050 x 500	1	ea.		
	1000 x 500	1	ea.		
	850 x 500	1	ea.		
	600 x 250	1	ea.		
	550 x 550	7	ea.		
	550 x 500		ea.		
	450 x 250	1	ea.		
	300 x 200	3	ea.		
15652(1)a	Chilled Water Piping				
	Steel Pipe, ERW Sched 40 incldg fittings and support				
	250 mm ø		l.m.		
	200 mm ø	24	l.m.		
	150 mm ø	24	l.m.		
	100 mm ø		l.m.		
	80 mm	60	l.m.		
	65 mmø		l.m.		
	50 mm ø		l.m.		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	40 mm ø		l.m.		
	32 mm ø		l.m.		
	25 mm ø		l.m.		
	20 mm ø		l.m.		
	15 mm ø		l.m.		
15250(2)a	Chilled Water Pipe Insulation, 50mm thk. Flexible closed cell elastomeric rubber				
	250 mm ø		l.m.		
	200 mm ø	24	l.m.		
	150 mm ø	24	l.m.		
	100 mm ø	340	l.m.		
	80 mm ø	60	l.m.		
	65 mm ø		l.m.		
	50 mm ø		l.m.		
	40 mm ø		l.m.		
	32 mm ø		l.m.		
	25 mm ø		l.m.		
	20 mm ø		l.m.		
	15 mm ø		l.m.		
	Pipe Insulation flexible closed cell rubber, 50 mm thk with vapor barrier				
	100 mm ø		l.m.		
	65 mm ø		l.m.		
	50 mm ø		l.m.		
	40 mm ø		l.m.		
	32 mm ø		l.m.		
	25 mm ø		l.m.		
	20 mm ø		l.m.		
	Fresh Air Louver w/ pre-filter and insect screen				
	450 x 250mm		set/s		
	300 x 250mm		set/s		
	200 x 200mm		set/s		
	300 x 300		set/s		
	200 x 150		set/s		
	150 x 150		set/s		
	Flexible Air Duct				
	150mm dia		l.m.		
	Exhaust Air Duct				
	200mm dia		l.m.		
	150mm dia				

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	Backdraft Damper				
	750 x 150		set/s		
15652(2)a	Valves & Piping Accessories				
	Butterfly Valve				
	150 mmø		ea.		
	100 mmø		ea.		
	80 mm ø	8	ea.		
	65 mmø		ea.		
	Ball valve				
	50 mm ø	8	ea.		
	25 mm ø		ea.		
	20 mm ø		ea.		
	15 mm ø		ea.		
	Auto Flow Control Valve				
	150 mmø		ea.		
	80 mmø	4	ea.		
	65 mmø		ea.		
	25 mm ø		ea.		
	20 mm ø		ea.		
	3-way Modulating Valve, 80 mm ø	4	ea.		
	3-way control valve				
	80 mmø		ea.		
	65 mmø		ea.		
	25 mm ø		ea.		
	20 mm ø		ea.		
	Wye Strainer with blow-off valve				
	150 mm ø		ea.		
	80 mm ø	4	ea.		
	65 mmø		ea.		
	32 mm ø		ea.		
	25 mm ø		ea.		
	20 mm ø		ea.		
	Auto Air Vent, tap to 65mm dia	8	ea.		
	Pressure Gauge	8	ea.		
	Tap to 65 mm diameter		ea.		
	Tap to 32 mm diameter		ea.		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	Tap to 25 mm diameter		ea.		
	Tap to 20 mm diameter		ea.		
	Flow Meter				
	Tap to 65 mm diameter		ea.		
	Pressure Gauge w/ pet cock & pressure gauge well		set/s		
	Thermometer				
	Tap to 365mm diameter		set/s		
	Tap to 32 mm diameter		set/s		
	Tap to 25 mm diameter		set/s		
	Tap to 20 mm diameter		set/s		
	Balancing Valve				
	32 mm ø		set/s		
	25 mm ø		set/s		
	20 mm ø		set/s		
	Temperature Gauge		set/s		
	Temperature Sensor		set/s		
	Check Valve				
	150 mm ø		set/s		
	Motorized Valve				
	150 mm ø		set/s		
	65 mm ø		set/s		
	32 mm ø		set/s		
	25 mm ø		set/s		
	20 mm ø		set/s		
	Gate Valve				
	150 mm ø		set/s		
	65 mm ø		set/s		
	50 mm ø		set/s		
	40 mm ø		set/s		
	32 mm ø		set/s		
	25 mm ø		set/s		
	20 mm ø		set/s		
15652(1)a	Ga. 26 Aluminum Pipe Cladding				
	150 mm ø, Ga.26Al. Pipe Cladding		l.m.		
	100 mm ø, Ga.26Al. Pipe Cladding		l.m.		
	80 mm ø, Ga.26Al. Pipe Cladding		l.m.		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	65 mm ø, Ga.26Al. Pipe Cladding		l.m.		
	Drain Valve				
	50 mm ø		set/s		
	25 mm ø		set/s		
	20 mm ø		set/s		
15200(2)a	Flexible Pipe Connector				
	150mmø		set/s		
	80 mm ø	8	sets		
	65 mmø		sets		
	32 mm ø		set/s		
	25 mm ø		sets		
	20 mm ø		sets		
	18.88mmø		set/s		
	9.53mmø		set/s		
15653(2)a	Refrigerant Piping , copper Type L				
	9.52 mm ø copper, RL	10	l.m.		
	15.88 mm ø, RS	10	l.m.		
15653(2)a	Refrigerant Pipe insulation, flexible elastomeric rubber, 25 mm thk				
	9.52 mm ø copper RL	10	l.m.		
	15.88 mm ø copper , RS	10	l.m.		
15652(1)a	Condensate Drain Piping, PVC pipe, sch 40, class 150				
	50 mm ø		l.m.		
	32 mm ø		l.m.		
	25 mm ø	10	l.m.		
	20 mm ø	10	l.m.		
15250(2)a	Condensate Drain pipe insulation, 19 mm thk flexible elastomeric				
	50 mm ø		l.m.		
	32 mm ø		l.m.		
	25 mm ø	10	l.m.		
	20 mm ø	10	l.m.		
15652(1)a	Aluminum Pipe Cladding				
	250 mm ø		l.m.		
	200 mm ø		l.m.		
	150 mm ø		l.m.		
	115 mm ø		l.m.		
	100 mm ø		l.m.		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	82 mm ø		l.m.		
	59.5 mm ø	10	l.m.		
	65.88mm ø	10	l.m.		
	50 mm ø		l.m.		
	20 mm ø		l.m.		
	15.88 mm Ø		l.m.		
	9.53 mmØ		l.m.		
15653(2)a	Fiter Dryer, 9.53 mm ø	1	set/s		
15653(2)a	Sight Glass, 9.53 mm ø	1	set/s		
	Chemical Pot Feeder		set/s		
	Flow Switch		set/s		
	Others, Pls Specify				
	Sub - Total				
1.2	Ventilation System				
15871(1)a	Equipment see schedule for specifications (to include all other necessary works to make the unit complete and operational)				
	EF / 1 Centrifugal In- LineFan , 680 cmh, Belt Drive 1/3 hp 230 V 1 Ph, 60Hz		set/s		
	EF / 2A-E Centrifugal Ceiling Casatte Fan , 262 cmh, direct drive, 0.17 hp, 230 V 1 Ph, 60 HZ		set/s		
	EF / 3 Centrifugal In- Line Fan , 1292 cmh, Belt Drive 1/3 hp, 230 V 1 Ph, 60HZ		set/s		
	EF / 4A Centrifugal Ceiling Cassette Fan, 195 cmh, direct drive, 19w, 230 V 1 Ph, 60HZ		set/s		
	EF / 5A-B Propeller Wall Mounted fan, 300 cmh, direct drive, 0.03 hp, 230 V 1Ph, 60HZ		set/s		
	EF - 6: 73 CMH, 125" ESP, direct drive, .02hp 230V, 1Ph, 60Hz, wall mounted propeller type with backdraft damper, weather hood, vibration isolators, isolation switch and other std accessories.		set/s		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	EF-7:2120 cmh, 0.125"ESP, direct drive, 0.11hp, 230V, 1Ph, 60Hz, wall mounted propeller type with backdraft damper, weather hood, vibration isolators, isolation switch and other std accessories.		set/s		
	EF- 8A -K : 262cmh, . 0.25" ESP, direct drive , 0.17 hp 230V, 1Ph, 60Hz, wall mounted propeller type with backdraft damper, weather hood, vibration isolator, isolation switch and other std accessories	11	set/s		
	EF / 9A - B Propeller Wall Mounted Fan, 1280 cmh, direct drive, 0.17 hp, 230 V 1ph, 60 HZ	2	set/s		
	EF / 10A-B Centrifugal Ceiling Cassette Fan, 1256 cmh direct drive , 1/2 hp, 230 V 1ph, 60 HZ	2	set/s		
	EF - 11A-J : 680cmh,. 25 " ESP, belt drive, 1/3hp, 230V, 1ph 60Hz, centrifugal in - line exhaust fan with backdraft damper, isolation switch and other std accessories	10	set/s		
	EF / 12A-E Propeller Wall Mounted Fan, 1659 cmh, direct drive, 104w, 230 V 1 Ph, 60HZ		set/s		
	EF / 13 Propeller Wall Mounted Fan, 210cmh, direct drive, 13w 230V 1Ph, 60 Hz		set/s		
	EF / 14 Propeller Wall Mounted Fan, 300cmh, direct drive, 19w 230V 1Ph, 60 Hz		set/s		
	EF /15A-B: Centrifugal Roof Exhaust Fan 5913 cmh, direct drive, 559 watts, 230V, 1Ph, 60 Hz		set/s		
	EF /16A-B: Propeller Wall Mounted Fan, 157 cmh, 63 watts, 230V 1Ph, 60 Hz		set/s		
	EF - 16B: 88cmh, .125* ESP, belt drive, .50 w, 230V, 1 Ph, 60Hz, wall mounted propeller type with backdraft damper, weather hood, vibration isolators, isolation switch and other std accessories.		set/s		
	EF - 17A-C: 5536cmh, 0.125* ESP, belt drive, .550 w, 230V, 1 Ph, 60Hz, wall mounted propeller type with backdraft damper, weather hood, vibration isolators, isolation switch and other std accessories.		set/s		
	EF - 18: 23885cmh, 1* ESP, belt drive, .420 w, 230V, 1 Ph, 60Hz, wall mounted propeller type with backdraft damper, weather hood, vibration isolators, isolation switch and other std accessories.		set/s		
	EF - 19: 11934cmh, 1* ESP, belt drive, .1500 w, 230V, 1 Ph, 60Hz, wall mounted propeller type with backdraft damper, weather hood, vibration isolators, isolation switch and other std accessories.		set/s		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	Exhaust Fan (EF-20),Ceiling cassette type, 530cmh, 63w, 230V, 1Ph, 60Hz, c/w TEFC motor, backdraft damper, & std accessories		set/s		
	Exhaust Fan(EF-21), wall mtd type, 834cmh, 36w,230V,1Ph, 60Hz, c/w TEFC motor, backdraft damper, & std accessories		set/s		
	Exhaust Fan (EF-22), wall mtd type, 210cmh, 13w,230V, 1Ph, 60Hz, c/w TEFC motor, backdraft damper, & std accessories		set/s		
	Exhaust Fan(EF-23), Ceiling cassette type, 131cmh, 19w, 230V, 1Ph, 60Hz, c/w TEFC motor, backdraft damper, & std accessories		set/s		
	Exhaust Fan (EF-24), wall mtd type 75cmh, 13w, 230v, 1 ph, hz, c/w TEFC motor, backdraft damper, & std accessories		set/s		
	Exhaust Fan (EF-25), wall mtd type 630cmh, 98w, 230v, 1 ph, hz, c/w TEFC motor, backdraft damper, & std accessories		set/s		
	Exhaust Fan (EF-26), wall mtd type 195c3h, 27w, 230v, 1 ph, hz, c/w TEFC motor, backdraft damper, & std accessories		set/s		
	Exhaust Fan (EF-27), wall mtd type 1280cmh, 27w, 230v, 1 ph, hz, c/w TEFC motor, backdraft damper, & std accessories		set/s		
	EF - 28: 480 cmh, 0.125"ESP, Direct drive, 0.03hp, 230V, 1Ph, 60Hz, wall mounted propeller type with backdraft damper, weather hood, vibration isolators, isolation switch and other std accessories.		set/s		
	Exhaust Fan (EF-29), wall mtd type 480cmh, 22w, 230v, 1 ph, hz, c/w TEFC motor, backdraft damper, & std accessories		set/s		
	EF / 29A-C Propeller Wall Mounted Fan, 300 cmh, direct drive, 19w, 230 V 1 Ph, 60HZ		set/s		
	Exhaust Fan (RH-1), kitchen hood type, 480cmh, 79w, 230V, 1Ph, 60Hz, backdraft amper, & std accessories		set/s		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	Pressurization Fan (PF-1), centrifugal utility type, 7024cmh, 2238w, 230V, 3ph, 60Hz explosion proof motor, backdraft damper & std accessories.		set/s		
	SEF / 1,3 & 4 Centrifugal Belt Driven Type Smoke Exhaust Fan C/W Backdraft Damper , 19720 cmh, 7.5 hp 220 V 3Ph, 60HZ	3	set/s		
	SEF / 2 Centrifugal Belt Driven Type Smoke Exhaust Fan C/W Backdraft Damper, 14110 cmh, 5hp, 220 V 3 Ph, 60 Hz	1	set/s		
	SEF / 5 Centrifugal Belt Driven Type Smoke Exhaust Fan C/W Backdraft Damper, 6358 cmh, 1.5hp, 220 V 1Ph, 60 Hz		set/s		
	SEF / 6 Centrifugal Belt Driven Type Smoke Exhaust Fn C/W Backdraft Damper, 6103 cmh, 1.93hp, 220 V 1Ph, 60 Hz		set/s		
	SEF / 7 Centrifugal Belt Driven Type Smoke Exhaust Fan C/W Backdraft Damper, 2040cmh, belt driven, 559.5w, 230V, 1Ph, 60Hz		set/s		
15871(2)a	PVC duct				
	200 mmø	161	l.m.		
	150 mmø		l.m.		
	100 mmø	14	l.m.		
15895(2)a	Vent Cap				
	250mm		set/s		
	200mm		set/s		
	150mm		set/s		
	100 mmø	7	sets		
15895(1)a	Galvanized Steel Duct including support				
	Ga 26	34.23	sq.m.		
	Ga 24	1299.39	sq.m.		
	Ga 22	1416.78	sq.m.		
15200(3)a	Flexible Duct Connector		l.m.		
	150mm dia. Flexible duct connector		l.m.		
	Toilet Exhaust Air Duct				
	150mm		l.m.		
	Air Duct Devices				
	Exhaust Air Register				
	650 x 150		set/s		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	550 x 150		set/s		
	Exhaust Air Register with Volume Damper				
	750 x 600		set/s		
	600 x 300		set/s		
	Butterfly Damper				
	800 x 750		set/s		
	800 x 600		set/s		
	Weather Hood		set/s		
	Range Hood Exhaust duct, stainless steel, ga		sq.m.		
	Fresh Air Louver w/ pre-filter and insect screen				
	300 x 300		set/s		
	Fresh Air register, 200 x 200 mm		set/s		
	Pressurization Air Register, 600 x 500		set/s		
	Range Hood Exhaust Louver, 400 x 150 mm		set/s		
	Smoke Exhaust Register				
	500 x 500		set/s		
	350 x 350		set/s		
	Motorized Smoke Damper				
	500 x 250		set/s		
	450 x 250		set/s		
	Volume Damper				
	300 x 250		set/s		
	600 x 500		set/s		
	450 x 250 mm		set/s		
	800 x 750		set/s		
	600 x 450		set/s		
	200x 150		set/s		
	150 x 150		set/s		
	Weather hood vent cap w/ insect screen		set/s		
	Sub - Total				
1.3	Fire Protection System				
	FP-1 : Fire Pump, 1600 gpm, c/w controller and std accessories, Electric Motor Driven		set/s		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	JP - 1: Jockey Pump, 20 gpm, c/w controller and std accessories.		set/s		
	Piping System				
15330(1)a	Black Steel Pipe, ERW schedule 40 with fitting and support				
	250 mm ø		l.m.		
	200 mm ø		l.m.		
	150 mm ø	92	l.m.		
	100 mm ø	494	l.m.		
	80 mm ø		l.m.		
	65 mm ø	3	l.m.		
	50 mm ø	32	l.m.		
	40 mm ø	1365	l.m.		
	32 mm ø	33	l.m.		
	25 mm ø	179	l.m.		
15330(2)a	Sprinkler Heads, k = 5.6 , 155° F temp rating				
	Pendent	352	set/s		
	Upright	36	set/s		
	Sidewall	5	set/s		
	Sprinkler reserve cabinet with spare sprinkler heads: (12 pendent and wrench)	2	set/s		
	Pendent, Standard spray, k= 5.6, 57° C temp rating		set/s		
15330(5)a	Fire Hose Cabinet				
	Fire Hose Cabinet made from Ga.18 BI steel construction with glass door, continuous steel hinge. Cabinet shall contain ø40cast brass angle valve with 30 m of ø40 polyurethane singled line synthetic jacket hose, brass nipple and coupling. Hose rack swivel type with pin and water stop. NST thread for fire hose. Cabinet to contain one (1) 4.5 kg abc dry chemical extinguisher.	8	set/s		
	Recessed Mounted Type / Class III (FCH-2) : Fire Hose cabinet made from gauge 18 BI steel construction with glass door, continuous steel hinge. Cabinet shall contain ø40 cast brass angle valve with 30m of ø40 polyurethane singled lined synthetic jacket hose, brass nipple and coupling. Hose rack swivel type with pin and water stop. NST thread for fire hose. Cabinet to contain one (1) 4.5 kg abc dry chemical extinguisher		set/s		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	Surface Mounted Type / Class III (BI. FHCassembly) : Fire hose cabinet made from gauge 18 BI steel construction with glass door, continuous steel hinge. Cabinet shall contain ø40 polyurethane singled lined synthetic jacket hose, brass nipple and coupling. Hose rack swivel type with pin and water stop. NST thread for fire hose. Cabinet to contain one (1) 4.5 kg abc dry chemical extinguisher.		set/s		
	Recessed Mounted Type / Class II (BI. FHCassembly): Fire hose cabinet made from gage 18 bi steel construction with glass door, continuous steel hinge. Cabinet shall contain ø40 cast brass angle valve with 30 m of ø40 polyurethane singled lined synthetic jacket hose, brass nipple and coupling. Hose rack swivel type with pin and water stop. NST thread for fire hose. Cabinet to contain one (1) 4.5 kg abc dry chemical extinguisher.		set/s		
15330(6)a	Fire Extinguisher				
	FE-1 : 4.5 kg. Siliconized mono ammonium phosphate dry chemical wall mounted multi- purpose portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	48	set/s		
	FE-2 : 4.5 kg. Carbon Dioxide portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.		set/s		
	FE-3 : 22.7 kg. Wheeled Carbon Dioxide portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.		set/s		
15330(3)a	Valves and Accessories				
	ø150 mm Alarm Check Valve Assembly c/w pressure gages, switch, alarm gong, retard chamber, trimmings and other standard accessories	1	set/s		
	ø100 mm Alarm Check Valve Assembly c/w pressure gages, switch, alarm, gong, retard chamber, trimmings and other standard accessories		set/s		
	ø80 mm Alarm Check Valve Assembly c/w pressure gages, switch, alarm gong, retard chamber, trimmings and other standard accessories		set/s		
	Ø65 mm Alarm Check Valve Assembly c/w pressure gages, switch, alarm gong, retard chamber, trimmings and other standard accessories.		set/s		
	150mmø OS&Y Gate Valve w/ supervisory switch	2	set/s		

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ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	OS&Y Gate Valve w/ monitor switch				
	150mmø	1	set/s		
	100 mmø	2	set/s		
	80 mmø		set/s		
	65 mmø		set/s		
	Fire Dept. Connection, 100 x 65 x 65 ø		set/s		
	Zone control Valve Assembly w/ supervisory switch				
	ø100mm		set/s		
	ø80mm		set/s		
	ø50mm		set/s		
	Flow Switch				
	ø50mm		set/s		
	Check valve				
	200mmø		set/s		
	100mmø	1	set/s		
	50mmø		set/s		
	25mmø		set/s		
	Water flow detector	2	set/s		
	Flushing Connection				
	80 mm ø		set/s		
	25 mm ø		set/s		
	Inspector Test Connection, ø25 mm		set/s		
	Mechanical Groove Coupling,				
	ø150 mm		set/s		
	ø100 mm		set/s		
	ø80 mm		set/s		
	ø65 mm		set/s		
	Flexible Coupling				
	250 mm dia.		set/s		
	50 mm dia.		set/s		
	Fire hose Valve,				
	40mmø		set/s		
	Gate Valve				
	250 mm dia.		set/s		
	200 mm dia.		set/s		
	150 mm dia.		set/s		
	50 mm dia.		set/s		
	32mmø		set/s		
	Globe Valve, 150 mm dia.		set/s		

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BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	Y - Strainer				
	250 mm dia.		set/s		
	50 mm dia.		set/s		
	Manifold, 150 mmØ x 1.0 m lg complete with 3 - 65 mmØ Fire hose valve		set/s		
	Pressure Gauge		set/s		
	Air Release valve, 25 mm dia.		set/s		
	Ball Drip Valve, 25 mm dia.		set/s		
	Test Valve with cap and chain, 65 mm dia.		set/s		
	Sight Glass , 25 mmø		set/s		
	Splash Block		lot		
	Painting		sq.m.		
15330	FM 200 Fire Suppression System				
	Supply and Installation of Fire Suppression System (FM-200), Including Cylinder Assemblies 215lbs. capacity, Valves, Pipe & Fittings, Wires & Conduit, Fire Alarm Control Panels & accessories and other miscellaneous, consumable items to complete as specified in Mechanical Drawings and Technical Specifications.		lot		
	Sub - Total				
1.4	Building Management System				
15971(1)c	To control and monitor status AHU'S, VAV'S, Exhaust Fans and accessories		pt		
	To Control and monitor status of Chillers and Chilled Water Pumps.		pt		
	Sub - Total				
	Fuel Oil & Exhaust System				
	Fuel Oil System				
	Positive displacement rotary gear pump complete with explosion proof motor, common steel base, vibration isolator, pressure relief vent, gauges, 1 gpm, 50 psi, 1 hp, 230V, 3ph, 60 hz				
	DT 1 - 3: Above ground light oil horizontal day tank, 660 gal, 1500 mmØ x 2600 mm length		set/s		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	Fuel Oil Piping				
	Fuel Oil Pipe, Black steel, sched 40, seamless with fittings and support,				
	65 mm ø		l.m.		
	50 mm ø		l.m.		
	20 mm ø		l.m.		
	Valves and accessories				
	Gate Valve				
	65 mm ø		set/s		
	50 mm ø		set/s		
	Check Valve, 50 mmØ		set/s		
	Duplex Basket Strainer, 50 mmØ		set/s		
	Pressure Relief Valve, 50 mmØ		set/s		
	Pressure Gauge		set/s		
	Flexible pipe connector				
	50 mmØ		set/s		
	20 mmØ		set/s		
15200(3)a	Flexible Duct Connector		l.m.		
	150mm dia. Flexible duct connector		l.m.		
	Exhaust Pipe				
	250 mØ		l.m.		
	100 mØ		l.m.		
	Exhaust Pipe Insulation				
	250mmØ		sq.m.		
	100mmØ		sq.m.		
	Flexible Pipe Connector				
	250mmØ		set/s		
	100mmØ		set/s		
	Wall Thimble				
	250 mmØ		set/s		
	100 mmØ		set/s		
	65 mm ø Cap with chain		set/s		
	Others, please specify				
	Sub - Total				
1.6	Testing and Commissioning				
	Testing and Commissioning (ACV and FP)		lot		
	Sub - Total				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
1.1	Airconditioning System				
1.2	Ventilation System				
13.2	Fire Protection System				
13.1	Building Management System				
1.5	Fuel Oil & Exhaust System				
1.6	Testing and Commissioning				
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
1.1	Air Conditioning System				
	Equipment, see schedule for specifications (to include all other necessary works to make the unit complete and operational.)				
15856(1)a	Air handling Unit				
	AHU-1 : Horizontal Draw Thru, Vertical Upblast, 47 TR	1	set/s		
	AHU-2A : Horizontal Draw Thru, Vertical Upblast, 12 TR	1	set/s		
	AHU-2B : Horizontal Draw Thru, Vertical Upblast, 15 TR	1	set/s		
	AHU-3 : Horizontal Draw Thru, Vertical Upblast, 40 TR	1	set/s		
	AHU-4 : Horizontal Draw Thru, Vertical Upblast, 60 TR	1	set/s		
	AHU-5 : Horizontal Draw Thru Vertical Upblast, 50 TR	1	set/s		
	PAHU-04 : 70 TR	1	set/s		
	PAHU-01 : 88 TR	1	set/s		
	PAHU-02 : 43 TR	1	set/s		
	PAHU-03 : 70 TR	1	set/s		
15653(1)a	DX split type Air-conditioning Unit complete with support, hangers, base and all necessary accessories as specified in the Mechanical Drawings and Technical Specifications.				
	FCU / ACCU - 1: 3.33TR, Ceiling Cassette	3	set/s		
	FCU / ACCU - 5A - B: 2.0 TR, Ceiling Cassette	2	set/s		
	FCU / ACCU - 6: 2.5TR, Ceiling Cassette	1	set/s		
15653(1)a	Multi-Split type Air-cooled Condensing Units; complete with all necessary accessories, support/hangers/connections, base as specified in the Mechanical Drawings and Technical Specifications.				
	Variable Refrigerant Volume Type; capacity 5.0TR	3	set/s		
15895(1)a	Galvanized Steel Duct including support				
	Ga 26	34.23	sq.m.		
	Ga 24	1299.39	sq.m.		
	Ga 22	1416.78	sq.m.		
	Ga 20	828.81	sq.m.		
15250(1)a	Duct Insulation, 50 mm thick, rigid minearl fiber 48kg/ m3 density	3579.21	sq.m.		
15250(1)a	Acoustical duct liner, 25 mm thk flexible unicellular rubber	122	sq.m.		
15895(3)a	Variable Air Volume Unit				
	VAV 1A-D, 500 cfm	4	set/s		
	VAV 2, 1400 cfm	1	set/s		
	VAV 3 400 cfm	1	sets		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
15895(2)a	Supply Air Grille				
	1050 x 150	18	set/s		
	550 x 150	2	set/s		
15895(2)a	Return Air Grille /Register				
	1200 x 1050	1	set/s		
	1050 x 450	31	set/s		
	550 x 550	7	set/s		
	450 x 250	3	set/s		
15895(2)a	Supply Ceiling Diffuser				
	450 x 450	4	set/s		
	400 x 400	45	set/s		
	375 x 375	96	set/s		
	300 x 300	35	set/s		
15895(2)a	Volume Damper				
	750 x 300	7	ea.		
	500 x 300	7	ea.		
	450 x 250	10	ea.		
	400 x 200	6	ea.		
	350 x 200	4	ea.		
15895(2)a	Fire and Smoke Damper				
	1950 x 650	3	ea.		
	1750 x 650	1	ea.		
15895(2)a	Motorized Smoke Damper				
	1850 x 650	1	ea.		
	1850 x 550	1	ea.		
	1600 x 600	1	ea.		
	1050 x 500	1	ea.		
	1000 x 500	1	ea.		
	850 x 500	1	ea.		
	600 x 250	1	ea.		
	550 x 550	7	ea.		
	450 x 250	1	ea.		
	300 x 200	3	ea.		
15652(1)a	Chilled Water Piping				
	Steel Pipe, ERW Sched 40 incldg fittings and support				
	150 mm ø	24	l.m.		
	100 mm ø	340	l.m.		
	80 mm	60	l.m.		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
15250(2)a	Chilled Water Pipe Insulation, 50mm thk. Flexible closed cell elastomeric rubber				
	150 mm ø	24	l.m.		
	100 mm ø	340	l.m.		
	80 mm ø	60	l.m.		
15652(2)a	Valves & Piping Accessories				
	Butterfly Valve				
	80 mm ø	8	ea.		
	Ball valve				
	50 mm ø	8	ea.		
	Auto Flow Control Valve				
	80 mmø	4	ea.		
	3-way Modulating Valve, 80 mm ø	4	ea.		
	Wye Strainer with blow-off valve				
	80 mm ø	4	ea.		
	Auto Air Vent, tap to 65mm dia	8	ea.		
	Pressure Gauge	8	ea.		
15200(2)a	Flexible Pipe Connector				
	80 mm ø	8	set/s		
15653(2)a	Refrigerant Piping , copper Type L				
	9.52 mm ø copper, RL	10	l.m.		
	15.88 mm ø, RS	10	l.m.		
15653(2)a	Refrigerant Pipe insulation, flexible elastomeric rubber, 25 mm thk				
	9.52 mm ø copper RL	10	l.m.		
	15.88 mm ø copper , RS	10	l.m.		
15652(1)a	Condensate Drain Piping, PVC pipe, sch 40, class 150				
	25 mm ø	10	l.m.		
	20 mm ø	10	l.m.		
15250(2)a	Condensate Drain pipe insulation, 19 mm thk flexible elastomeric				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	25 mm ø	10	l.m.		
	20 mm ø	10	l.m.		
15652(1)a	Aluminum Pipe Cladding				
	59.5 mm ø	10	l.m.		
	65.88mm ø	10	l.m.		
15653(2)a	Fiter Dryer, 9.53 mm ø	1	set/s		
15653(2)a	Sight Glass, 9.53 mm ø	1	set/s		
	Others, Pls Specify				
	Sub - Total				
1.2	Ventilation System				
15871(1)a	Equipment see schedule for specifications (to include all other necessary works to make the unit complete and operational)				
	EF- 8A -K : 262cmh, . 0.25" ESP, direct drive , 0.17 hp 230V, 1Ph, 60Hz, wall mounted propeller type with backdraft damper, weather hood, vibration isolator, isolation switch and other std accessories	11	set/s		
	EF / 9A - B Propeller Wall Mounted Fan, 1280 cmh, direct drive, 0.17 hp, 230 V 1ph, 60 HZ	2	set/s		
	EF / 10A-B Centrifugal Ceiling Cassette Fan, 1256 cmh direct drive , 1/2 hp, 230 V 1ph, 60 HZ	2	set/s		
	EF -11A-J : 680cmh,. 25 " ESP, belt drive, 1/3hp, 230V, 1ph 60Hz, centrifugal in - line exhaust fan with backdraft damper, isolation switch and other std accessories	10	set/s		
	SEF / 1,3 & 4 Centrifugal Belt Driven Type Smoke Exhaust Fan C/W Backdraft Damper , 19720 cmh, 7.5 hp 220 V 3Ph, 60HZ	3	set/s		
	SEF / 2 Centrifugal Belt Driven Type Smoke Exhaust Fan C/W Backdraft Damper, 14110 cmh, 5hp, 220 V 3 Ph, 60 Hz	1	set/s		
15871(2)a	PVC duct				
	200 mmø	161	l.m.		
	100 mmø	14	l.m.		
15895(2)a	Vent Cap				
	200mm	12	set/s		
	100 mmø	7	sets		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	Sub - Total				
13.2	Fire Protection System				
	Piping System				
15330(1)a	Black Steel Pipe, ERW schedule 40 with fitting and support				
	150 mm ø	92	l.m.		
	100 mm ø	494	l.m.		
	65 mm ø	3	l.m.		
	50 mm ø	32	l.m.		
	40 mm ø	1365	l.m.		
	32 mm ø	33	l.m.		
	25 mm ø	179	l.m.		
15330(2)a	Sprinkler Heads, k = 5.6 , 155° F temp rating				
	Pendent	352	set/s		
	Upright	36	set/s		
	Sidewall	5	set/s		
	Sprinkler reserve cabinet with spare sprinkler heads: (12 pendent and wrench)	2	set/s		
15330(5)a	Fire Hose Cabinet				
	Fire Hose Cabinet made from Ga.18 BI steel construction with glass door, continuous steel hinge. Cabinet shall contain ø40cast brass angle valve with 30 m of ø40 polyurethane singled line synthetic jacket hose, brass nipple and coupling. Hose rack swivel type with pin and water stop. NST thread for fire hose. Cabinet to contain one (1) 4.5 kg abc dry chemical extinguisher.	8	set/s		
15330(6)a	Fire Extinguisher				
	FE-1 : 4.5 kg. Siliconized mono ammonium phosphate dry chemical wall mounted multi- purpose portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	48	set/s		
15330(3)a	Valves and Accessories				
	ø150 mm Alarm Check Valve Assembly c/w pressure gages, switch, alarm gong, retard chamber, trimmings and other standard accessories	1	set/s		
	150mmø OS&Y Gate Valve w/ supervisory switch	2	set/s		
	OS&Y Gate Valve w/ monitor switch				
	150mmø	1	set/s		
	100 mmø	2	set/s		
	Check valve				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	100mmø	1	set/s		
	Water flow detector	2	set/s		
	Sub - Total				
13.1	Building Management System				
	Sub - Total				
	Fuel Oil & Exhaust System				
	Others, please specify				
	Sub - Total				
1.6	Testing and Commissioning				
	Testing and Commissioning (ACV and FP)	1	lot		
	Sub - Total				
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
13.2.1	Piping System				
	Black Steel Pipe, ERW schedule 40 with fitting and support				
1	100 mm ø	6	l.m.		
2	80 mm ø	36	l.m.		
3	40 mm ø	6	l.m.		
4	32 mm ø	90	l.m.		
5	25 mm ø	12	l.m.		
13.2.2	Sprinkler Heads, k = 5.6 , 155° F temp rating				
1	Pendent	2	set/s		
2	Upright	18	set/s		
3	Sidewall	10	set/s		
4	Sprinkler reserve cabinet with spare sprinkler heads: (12 pendent and wrench)	1	set/s		
13.2.3	Fire Hose Cabinet				
1	Fire Hose Cabinet made from Ga.18 BI steel construction with glass door, continuous steel hinge. Cabinet shall contain ø40cast brass angle valve with 30 m of ø40 polyurethane singled line synthetic jacket hose, brass nipple and coupling. Hose rack swivel type with pin and water stop. NST thread for fire hose. Cabinet to contain one (1) 4.5 kg abc dry chemical extinguisher.	1	set/s		
13.2.4	Fire Extinguisher				
1	FE-1 : 4.5 kg. Siliconized mono ammonium phosphate dry chemical wall mounted multi- purpose portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	2	set/s		
13.2.5	Valves and Accessories				
1	ø100 mm Alarm Check Valve Assembly c/w pressure gages, switch, alarm, gong, retard chamber, trimmings and other standard accessories	1	set/s		
	OS&Y Gate Valve w/ monitor switch				
2	100 mmø	1	set/s		
3	Fire Dept. Connection, 100 x 65 x 65 ø	1	set/s		
	Check valve				
4	100mmø	1	set/s		
	Flushing Connection				
5	80 mm ø	4	set/s		
6	Inspector Test Connection, ø25 mm	1	set/s		
	Mechanical Groove Coupling,				
7	ø100 mm	2	set/s		
8	Fire hose Valve, 40mmø	1	set/s		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT
Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13.2.6	Miscellaneous				
1	Splash Block	1	lot		
2	Painting	27	sq.m.		
	Sub - Total				
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT
Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.1	Building Management System				
1	To control and monitor status AHU'S, VAV'S, Exhaust Fans and accessories	113	pt		
	Sub - Total				
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.1	Building Management System				
1	To control and monitor status AHU'S, VAV'S, Exhaust Fans and accessories	62	pt		
	Sub - Total				
13.2	Fire Protection System				
13.2.1	Piping System				
	Black Steel Pipe, ERW schedule 40 with fitting and support				
1	100 mm ø	24	l.m.		
2	80 mm ø	18	l.m.		
3	65 mm ø	18	l.m.		
4	50 mm ø	24	l.m.		
5	40 mm ø	30	l.m.		
6	32 mm ø	6	l.m.		
7	25 mm ø	102	l.m.		
13.2.2	Sprinkler Heads, k = 5.6 , 155° F temp rating				
1	Pendent	42	set/s		
2	Sidewall	2	set/s		
3	Sprinkler reserve cabinet with spare sprinkler heads: (12 pendent and wrench)	1	set/s		
13.2.3	Fire Hose Cabinet				
1	Surface Mounted Type / Class III (Bl. FHCassembly) : Fire hose cabinet made from gauge 18 Bl steel construction with glass door, continuous steel hinge. Cabinet shall contain ø40 polyurethane singled lined synthetic jacket hose, brass nipple and coupling. Hose rack swivel type with pin and water stop. NST thread for fire hose. Cabinet to contain one (1) 4.5 kg abc dry chemical extinguisher.	2	set/s		
13.2.4	Fire Extinguisher				
1	FE-1 : 4.5 kg. Siliconized mono ammonium phosphate dry chemical wall mounted multi- purpose portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	6	set/s		
13.2.5	Valves and Accessories				
1	ø80 mm Alarm Check Valve Assembly c/w pressure gages, switch, alarm gong, retard chamber, trimmings and other standard accessories	1	set/s		
	OS&Y Gate Valve w/ monitor switch				
2	80 mmø	1	set/s		
3	Fire Dept. Connection, 100 x 65 x 65 ø	1	set/s		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT
Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	Zone control Valve Assembly w/ supervisory switch				
4	ø80mm	1	set/s		
5	ø50mm	2	set/s		
	Check valve				
6	100mmø	1	set/s		
7	25mmø	3	set/s		
8	Inspector Test Connection, ø25 mm	2	set/s		
	Mechanical Groove Coupling				
9	ø80 mm	3	set/s		
	Gate Valve				
10	32mmø	3	set/s		
13.2.6	Miscellaneous				
1	Sight Glass , 25 mmø	3	set/s		
2	Splash Block	2	lot		
3	Painting	40	sq.m.		
	Sub - Total				
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
13.2.1	Piping System				
	Black Steel Pipe, ERW schedule 40 with fitting and support				
1	150 mm ø	12	l.m.		
2	80 mm ø	130	l.m.		
3	32 mm ø	148	l.m.		
4	25 mm ø	18	l.m.		
13.2.2	Sprinkler Heads, k = 5.6 , 155° F temp rating				
1	Pendent	5	set/s		
2	Upright	33	set/s		
3	Sprinkler reserve cabinet with spare sprinkler heads: (12 pendent and wrench)	1	set/s		
13.2.3	Fire Hose Cabinet				
1	Recessed Mounted Type / Class II (Bl. FHCassembly): Fire hose cabinet made from gage 18 bi steel construction with glass door, continuous steel hinge. Cabinet shall contain ø40 cast brass angle valve with 30 m of ø40 polyurethane singled lined synthetic jacket hose, brass nipple and coupling. Hose rack swivel type with pin and water stop. NST thread for fire hose. Cabinet to contain one (1) 4.5 kg abc drv chemical extinguisher.	1	set/s		
13.2.4	Fire Extinguisher				
1	FE-1 : 4.5 kg. Siliconized mono ammonium phosphate dry chemical wall mounted multi- purpose portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	5	set/s		
13.2.5	Valves and Accessories				
1	ø150 mm Alarm Check Valve Assembly c/w pressure gages, switch, alarm gong, retard chamber, trimmings and other standard accessories	1	set/s		
	OS&Y Gate Valve w/ monitor switch				
2	150mmø	1	set/s		
3	Fire Dept. Connection, 100 x 65 x 65 ø	1	set/s		
	Check valve				
4	100mmø	1	set/s		
	Flushing Connection				
5	25 mm ø	4	set/s		
6	Inspector Test Connection, ø25 mm	1	set/s		
	Mechanical Groove Coupling,				
7	ø150 mm	1	set/s		
8	ø80 mm	3	set/s		
	Fire hose Valve,				
9	40mmø	5	set/s		

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT
Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13.2.6	Miscellaneous				
1	Splash Block	1	lot		
2	Painting	70	sq.m.		
	Sub - Total				
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
13.2.1	Piping System				
	Black Steel Pipe, ERW schedule 40 with fitting and support				
1	65 mm ø	12	l.m.		
2	40 mm ø	30	l.m.		
3	32 mm ø	6	l.m.		
4	25 mm ø	12	l.m.		
13.2.2	Sprinkler Heads, k = 5.6 , 155° F temp rating				
1	Pendent, Standard spray, k= 5.6, 57° C temp rating	4	set/s		
13.2.3	Fire Hose Cabinet				
1	Recessed Mounted Type / Class II (Bl. FHCassembly): Fire hose cabinet made from gage 18 bi steel construction with glass door, continuous steel hinge. Cabinet shall contain ø40 cast brass angle valve with 30 m of ø40 polyurethane singled lined synthetic jacket hose, brass nipple and coupling. Hose rack swivel type with pin and water stop. NST thread for fire hose. Cabinet to contain one (1) 4.5 kg abc drv chemical extinguisher.	1	set/s		
13.2.4	Fire Extinguisher				
1	FE-1 : 4.5 kg. Siliconized mono ammonium phosphate dry chemical wall mounted multi- purpose portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	1	set/s		
2	FE-2 : 4.5 kg. Carbon Dioxide portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	2	set/s		
3	FE-3 : 22.7 kg. Wheeled Carbon Dioxide portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	4	set/s		
13.2.5	Valves and Accessories				
1	Ø65 mm Alarm Check Valve Assembly c/w pressure gages, switch, alarm gong, retard chamber, trimmings and other standard accessories.	1	set/s		
	OS&Y Gate Valve w/ monitor switch				
2	65 mmø	1	set/s		
	Mechanical Groove Coupling,				
3	ø65 mm	2	set/s		
4	Fire hose Valve, 40mmø	1	set/s		
13.2.6	Miscellaneous				
1	Painting	25	sq.m.		
	Sub - Total				
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.1	Building Management System				
1	To control and monitor status AHU'S, VAV'S, Exhaust Fans and accessories	182	pt		
	Sub - Total				
13.2	Fire Protection System				
13.2.1	Piping System				
	Black Steel Pipe, ERW schedule 40 with fitting and support				
1	150 mm ø	18	l.m.		
2	100 mm ø	54	l.m.		
3	80 mm ø	12	l.m.		
4	65 mm ø	6	l.m.		
5	50 mm ø	36	l.m.		
6	40 mm ø	42	l.m.		
7	32 mm ø	48	l.m.		
8	25 mm ø	216	l.m.		
13.2.2	Sprinkler Heads, k = 5.6 , 155° F temp rating				
1	Pendent	75	set/s		
2	Sidewall	6	set/s		
3	Sprinkler reserve cabinet with spare sprinkler heads: (12 pendent and wrench)	1	set/s		
13.2.3	Fire Hose Cabinet				
1	Recessed Mounted Type / Class III (FCH-2) : Fire Hose cabinet made from gauge 18 BI steel construction with glass door, continuous steel hinge. Cabinet shall contain ø40 cast brass angle valve with 30m of ø40 polyurethane singled lined synthetic jacket hose, brass nipple and coupling. Hose rack swivel type with pin and water stop. NST thread for fire hose. Cabinet to contain one (1) 4.5 kg abc dry chemical extinguisher	5	set/s		
13.2.4	Fire Extinguisher				
1	FE-1 : 4.5 kg. Siliconized mono ammonium phosphate dry chemical wall mounted multi- purpose portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	13	set/s		
2	FE-2 : 4.5 kg. Carbon Dioxide portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	4	set/s		
13.2.5	Valves and Accessories				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
1	ø100 mm Alarm Check Valve Assembly c/w pressure gages, switch, alarm, gong, retard chamber, trimmings and other standard accessories	1	set/s		
	OS&Y Gate Valve w/ monitor switch				
2	100 mmø	1	set/s		
3	Fire Dept. Connection, 100 x 65 x 65 ø	1	set/s		
	Zone control Valve Assembly w/ supervisory switch				
4	ø100mm	1	set/s		
	Flow Switch				
5	ø50mm	5	set/s		
6	Inspector Test Connection, ø25 mm	2	set/s		
7	Mechanical Groove Coupling,				
	ø100 mm	3	set/s		
13.2.6	Miscellaneous				
1	Splash Block	2	lot		
2	Painting	125	sq.m.		
13.2.7	FM 200 Fire Suppression System				
1	Supply and Installation of Fire Suppression System (FM-200), Including Cylinder Assemblies 215lbs. capacity, Valves, Pipe & Fittings, Wires & Conduit, Fire Alarm Control Panels & accessories and other miscellaneous, consumable items to complete as specified in Mechanical Drawings and Technical Specifications.	1	lot		
	Sub - Total				
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
13.2.1	Pumps				
1	FP-1 : Fire Pump, 1600 gpm, c/w controller and std accessories, Electric Motor Driven	1	set/s		
2	JP - 1: Jockey Pump, 20 gpm, c/w controller and std accessories.	1	set/s		
13.2.2	Piping System				
13.2.2.1	Black Steel Pipe, ERW schedule 40 with fitting and support				
1	250 mm ø	12	l.m.		
2	200 mm ø	12	l.m.		
3	150 mm ø	12	l.m.		
4	50 mm ø	12	l.m.		
13.2.3	Fire Extinguisher				
1	FE-3 : 22.7 kg. Wheeled Carbon Dioxide portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	1	set/s		
13.2.4	Valves and Accessories				
	Check valve				
1	200mmø	2	set/s		
2	50mmø	1	set/s		
	Flexible Coupling				
3	250 mm dia.	2	set/s		
4	50 mm dia.	2	set/s		
	Gate Valve				
5	250 mm dia.	1	set/s		
6	200 mm dia.	1	set/s		
7	150 mm dia.	4	set/s		
8	50 mm dia.	2	set/s		
9	32mmø	1	set/s		
10	Globe Valve, 150 mm dia.	1	set/s		
	Y - Strainer				
11	250 mm dia.	1	set/s		
12	50 mm dia.	1	set/s		
13	Manifold, 150 mmØ x 1.0 m lg complete with 3 - 65 mmØ Fire hose valve	1	set/s		
14	Pressure Gauge	4	set/s		
15	Air Release valve, 25 mm dia.	3	set/s		
16	Ball Drip Valve, 25 mm dia.	1	set/s		
17	Test Valve with cap and chain, 65 mm dia.	3	set/s		
13.2.5	Miscellaneous				
1	Painting	30	sq.m.		
	Sub - Total				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT
Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT
Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
13.2.1	Fire Extinguisher				
1	FE-1 : 4.5 kg. Siliconized mono ammonium phosphate dry chemical wall mounted multi- purpose portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	1	set/s		
	Sub - Total				
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT
Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
13.2.1	Fire Extinguisher				
1	FE-1 : 4.5 kg. Siliconized mono ammonium phosphate dry chemical wall mounted multi- purpose portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	1	set/s		
	Sub - Total				
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT
Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
	TOTAL				
13.1	Building Management System				
	To Control and monitor status of Chillers and Chilled Water Pumps.	56	pt		
	Sub - Total				
13.2	Fire Protection System				
13.2.1	Fire Extinguisher				
1	FE-3 : 22.7 kg. Wheeled Carbon Dioxide portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	1	set/s		
	Sub - Total				
	TOTAL				

BILL OF QUANTITIES

BICOL INTERNATIONAL AIRPORT DEVELOPMENT PROJECT
Daraga, Albay

ITEM NO.	DESCRIPTION	ESTIMATED QTY	UNIT	UNIT COST	TOTAL COST
13	SPECIAL CONSTRUCTION				
13.2	Fire Protection System				
13.2.1	Fire Extinguisher				
	FE-1 : 4.5 kg. Siliconized mono ammonium phosphate dry chemical wall mounted multi- purpose portable fire extinguisher complete with hose and horn, wall bracket, UL listed and FM approved.	1	set/s		
	Sub - Total				
	TOTAL				