



PROJECT: **Continuation of the Completion of the Construction of Institutional Herd Facilities at PCC - CSU**
 LOCATION: **Piat, Cagayan**
 SUBJECT: **Bill of Materials**

B. PROGRAM OF WORKS							
Particulars			Quantity	Unit	Unit Rate	Total Cost	
ITEM	QTY/L	QTY/PARTICULARS	Unit/Blank	QTY/DAYS	UNIT	UNIT RATE	TOTAL COST
I. GENERAL REQUIREMENTS							
	Quantity =	1.00	lot				
O1		Mobilization		1.00	lot		
O2		Material Testing		1.00	lot		
O2		Tempfacil		1.00	lot		
O2		Safety & Health		1.00	lot		
O2		Cad As-Built of Project/ Variation Shopdrawing		1.00	lot		
	O1	-	Not Subjected to OCM and Profit Mark-up				
	O2	-	Not Subjected to OCM Mark-up				
						Total Cost	
						Unit Cost	/lot
II. BACKFILLING WORKS							
	Quantity =	1.00	lot				
1)		Materials					
		Backfill (Mixed materials)		600	cu.m.	400.00	
						Total Cost	
						Unit Cost	/lot
III. COMMUNAL PEN (HOUSE 4)							
III.A. EARTHWORKS AND DEMOLITION							
	Quantity =	25.00	cu.m				
1)		Material					
		Equipment (Rental)					
		1 Chipping Gun		5.00	days		
2)		Labor					
		Demolition (For reinstallation of Anchor Bolt)					
		Labor		5.00	days		
Select Fill							
1)		Materials					
		Earthfill		112	cu.m.		
		Gravel (G-3/4)		8	cu.m.		
2)		Labor					
		Skilled		5.00	days		
		Labor		5.00	days		
						Total Cost	
						Unit Cost	/cu.m



B. PROGRAM OF WORKS				
Particulars	Quantity	Unit	Unit Rate	Total Cost
III.B. REINFORCED CONCRETE WORKS				
Quantity =	13.29	cu.m		
1) Materials				
Portland Cement (40KG)	205	bags		
Sand (S1)	12	cu.m.		
Gravel (G-3/4)	28	cu.m.		
Rebars				
10 mm Ø x 6.0 m	123.00	pcs		
G.I. Tie Wire #16	8.00	kgs.		
1/4" Plywood Form Board	2.00	pcs.		
Form Lumber (coco)	24.00	bd.ft.		
Assorted CWN	25.00	kgs.		
Equipment (Rental)				
1-Bagger Concrete Mixer	15.00	days		
1- Concrete Vibrator	15.00	days		
2) Labor				
a. Pouring of Concrete				
Skilled	15.00	days		
Labor	15.00	days		
b. Rebars (cut, bend & place)				
Skilled	5.00	days		
Labor	5.00	days		
c. Forms (fab.,installation & removal)				
Skilled	5.00	days		
Labor	5.00	days		
			Total Cost	
			Unit Cost	/cu.m
III.C. MASONRY WORKS				
Quantity =	8.14	sq.m		
1) Materials				
4" thk. Chb	597	pcs.		
Sand (S1)	3	cu.m.		
Portland Cement (40KG)	47	bags		
10 mm x 6.0 m rebars	25	pcs		
No. 16 G.I Tie wire	4	kgs.		
2) Labor				
Skilled	9.00	days		
Labor	9.00	days		
			Total Cost	
			Unit Cost	/sq.m



Department of Agriculture
PHILIPPINE CARABAO CENTER
CERTIFIED ISO 9001/ISO 14001/ISO 45001

B. PROGRAM OF WORKS				
Particulars	Quantity	Unit	Unit Rate	Total Cost
III.D. METAL STRUCTURE				
Quantity =	1.00	lot		
1) Materials				
Trusses				
50X150X6mmx6mm thk Channel Bar	30.00	pcs		
50X200X6mmx6mm thk Channel Bar	3.00	pcs		
50x50x3mm Angular bar	230.00	kgs.		
1.5x 50x 100mm C- Purlins	139.00	pcs		
10mm sagrods, tension rods	89.00	kgs.		
12mm cross bracing	209.00	kgs.		
12mm turn buckle	38.00	pcs		
Welding Rod	95.00	kgs.		
Red Oxide	8.00	gals		
Paint Thinner	4.00	gals		
Steel Column				
200 x 300 x 16mm base plate	78.00	kgs.		
200 x 300x 16mm base plate support	516.00	kgs.		
20mm diameter anchor bolts w/ nuts and washer	63.00	kgs.		
Steel Railing and Gate				
50mm diam.G.I Pipe sched. 40	227.00	pcs.		
Welding Rod	90.00	kgs.		
Metal Epoxy Gray	9.00	gals		
Hinges	56.00	pcs.		
2) Labor				
Skilled	26.00	days		
Labor	26.00	days		
			Total Cost	
			Unit Cost	/lot
III.E. PRE-PAINTED METAL SHEET				
Quantity =	672.00	sq.m		
1) Materials				
Pre-painted Metal Roofing Sheet 0.5mm (Rib-Type)(Blue)	744.00	sq.m		
Pre-painted Ridge Roll	20.00	pcs		
Pre-painted Gutter	40.00	pcs		
Pre-painted Flashing	14.00	pcs		
Teck Screw Metal	1600.00	pcs.		
Roof Sealant	405.00	qrtz		
Blind Rivets	5.00	boxes		
2) Labor				
Skilled	19.00	days		
Labor	19.00	days		
			Total Cost	
			Unit Cost	/sq.m



B. PROGRAM OF WORKS					
	Particulars	Quantity	Unit	Unit Rate	Total Cost
III.F. PLUMBING					
Quantity =		1.00 lot			
1) Materials					
WATER LINES					
Drinking Trough					
	PPR Elbow 3/4"	25.00	pcs		
	PPR Tee 1 x 3/4"	3.00	pcs		
	PPR Gate valve 1"	1.00	pc		
	PPR Tee 3/4"	10.00	pcs.		
Shower Sprinkler					
	PPR Tee 1 x 3/4"	3.00	pcs		
	PPR Gate valve 3/4"	2.00	pcs		
	PPR Elbow adopter 3/4"	10.00	pcs		
	PPR Tee 1/2"	20.00	pcs		
	Shower Head with Ball valve 1/2"	20.00	pcs		
	PPR Coupling 3/4"	31.00	pcs		
	PPR Coupling 1"	5.00	pcs		
	Teflon Tape big	10.00	pcs		
	Metal C Clamp 3 x 20mm	20.00	pcs		
	PPR Pipe1" Pn40	12.00	pcs		
	PPR Pipe 3/4" Pn40	26.00	pcs		
	Submersible Pump 0.5 hp, single phase 220v	1.00	pc		
	IBC Tank	1.00	cu.m.		
	PE Hose 1/2 inch dia.	30.00	m		
	PE tee 1/2 inch dia	1.00	pcs		
	Mechanical Floater	11.00	pcs		
	PPR Reducer 3/4 x 1/2" bushing	10.00	pcs		
2) Labor					
	Skilled	10.00	days		
	Labor	10.00	days		
Total Cost					
Unit Cost					/lot



B. PROGRAM OF WORKS				
Particulars	Quantity	Unit	Unit Rate	Total Cost
III.G. ELECTRICAL				
Quantity =	1.00	lot		
1) Materials				
Panel Board, 50Amp 220 V, 2P, main CB	1	unit		
4 Holes branches, Nema Closure branches circuit breaker				
20 AT Ckt breaker	2	pair		
30 AT Ckt breaker	2	pairs		
Wires				
8.0 mm2 THHN Wires	40	meters		
3.5 mm2 THHN Wires	1	rolls		
2.0 mm2 THHN Wires	3	rolls		
Pipes and Fittings				
PVC Pipe 1/2"	150.00	pcs		
PVC Pipe 3/4"	2.00	pcs		
Entrance Cap 3/4"	1.00	pcs		
Utility Box	6.00	pcs		
4 x 4 Junction Box	6.00	bag		
Devices				
15 Watts LED bulb	15.00	pcs		
Three Gang Switch	3.00	sets		
Duplex Convenience Outlet (weather proof)	8.00	sets		
Duplex Convenience Outlet (drop type)	4.00	sets		
E-27 Receptacle 4"	15.00	pcs		
Electrical Tape	5.00	pcs		
2) Labor				
Skilled	10.00	days		
Labor	10.00	days		
			Total Cost	
			Unit Cost	/lot



B. PROGRAM OF WORKS				
Particulars	Quantity	Unit	Unit Rate	Total Cost
IV. COMMUNAL PEN (HOUSE 5)				
IV.A. EARTHWORKS AND DEMOLITION				
Quantity =	25.00	cu.m		
1) Material				
Equipment (Rental)				
1 Chipping Gun	5.00	days		
2) Labor				
Demolition (For reinstallation of Anchor Bolt)				
Labor	5.00	days		
Excavation				
Labor	2.00	days		
Select Fill				
1) Materials				
Earthfill	125	cu.m.		
Gravel (G-3/4)	8	cu.m.		
2) Labor				
Skilled	5.00	days		
Labor	5.00	days		
			Total Cost	
			Unit Cost	/cu.m



B. PROGRAM OF WORKS				
Particulars	Quantity	Unit	Unit Rate	Total Cost
IV.B. REINFORCED CONCRETE WORKS				
Quantity =	13.29	cu.m		
1) Materials				
Portland Cement (40KG)	238	bags		
Sand (S1)	13	cu.m.		
Gravel (G-3/4)	28	cu.m.		
16 mm Ø x 6.0 m	31.00	pcs.		
12 mm Ø x 6.0 m	15.00	pcs.		
10 mm Ø x 6.0 m	152.00	pcs.		
G.I. Tie Wire #16	10.00	kgs.		
1/4" Plywood Form Board	4.00	pcs.		
Form Lumber (coco)	40.00	bd.ft.		
Assorted CWN	25.00	kgs.		
Equipment (Rental)				
1-Bagger Concrete Mixer	15.00	days		
1- Concrete Vibrator	15.00	days		
2) Labor				
a. Pouring of Concrete				
Skilled	15.00	days		
Labor	15.00	days		
b. Rebars (cut, bend & place)				
Skilled	5.00	days		
Labor	5.00	days		
c. Forms (fab.,installation & removal)				
Skilled	5.00	days		
Labor	5.00	days		
			Total Cost	
			Unit Cost	/cu.m



B. PROGRAM OF WORKS				
Particulars	Quantity	Unit	Unit Rate	Total Cost
IV.C. MASONRY WORKS				
Quantity =	8.14	sqm.		
1) Materials				
4" thk. Chb	673	pcs.		
Sand (S1)	5	cu.m.		
Portland Cement (40KG)	51	bags		
10 mm x 6.0 m rebars	29	pcs		
No. 16 G.I Tie wire	4	kgs.		
2) Labor				
Skilled	9.00	days		
Labor	9.00	days		
			Total Cost	
			Unit Cost	/sqm.
IV.D. METAL STRUCTURE				
Quantity =	1.00	lot		
1) Materials				
Trusses				
50X150X6mmx6mm thk Channel Bar	40.00	pcs		
50X200X6mmx6mm thk Channel Bar	27.00	pcs		
50x50x3mm Angular bar	230.00	kgs.		
1.5x 50x 100mm C- Purlins	139.00	pcs		
10mm sagrods, tension rods	89.00	kgs.		
12mm cross bracing	209.00	kgs.		
12mm turn buckle	38.00	pcs		
Welding Rod	95.00	kgs.		
Red Oxide	8.00	gals		
Paint Thinner	4.00	gals		
Steel Column				
200 x 300 x 16mm base plate	349.00	kgs.		
200 x 300 x 16mm base plate support	696.00	kgs.		
20mm diameter anchor bolts w/ nuts and washer	123.00	kgs.		
300 x 300 x 16mm thk MS plate	262.00	kgs.		
150MM dia. X 6mm thk G.I.Pipe	10.00	pcs.		
Steel Railing and Gate				
50mm diam.G.I Pipe sched. 40	236.00	pcs.		
Welding Rod	90.00	kgs.		
Metal Epoxy Gray	9.00	gals		
Hinges	56.00	pcs.		
2) Labor				
Skilled	26.00	days		
Labor	26.00	days		
			Total Cost	
			Unit Cost	/lot



B. PROGRAM OF WORKS				
Particulars	Quantity	Unit	Unit Rate	Total Cost
IV.E. PRE-PAINTED METAL SHEET				
Quantity =	672.00	sq.m		
1) Materials				
Pre-painted Metal Roofing Sheet 0.5mm (Rib-Type)(Blue)	744.00	sq.m		
Pre-painted Ridge Roll	20.00	pcs		
Pre-painted Gutter	40.00	pcs		
Pre-painted Flashing	14.00	pcs		
Teck Screw Metal	1600.00	pcs.		
Roof Sealant	405.00	qrtz		
Blind Rivets	5.00	boxes		
2) Labor				
Skilled	19.00	days		
Labor	19.00	days		
			Total Cost	
			Unit Cost	/sq.m
IV.F. PLUMBING				
Quantity =	1.00	lot		
1) Materials				
WATER LINES				
Drinking Trough				
PPR Elbow 3/4"	25.00	pcs		
PPR Tee 1 x 3/4"	3.00	pcs		
PPR Gate valve 1"	1.00	pc		
PPR Tee 3/4"	10.00	pcs.		
Shower Sprinkler				
PPR Tee 1 x 3/4"	3.00	pcs		
PPR Gate valve 3/4"	2.00	pcs		
PPR Elbow adopter 3/4"	10.00	pcs		
PPR Tee 3/4" x 1/2"	20.00	pcs		
Shower Head with Ball valve 1/2"	20.00	pcs		
PPR Coupling 3/4"	31.00	pcs		
PPR Coupling 1"	5.00	pcs		
Teflon Tape big	10.00	pcs		
Metal C Clamp 3 x 20mm	20.00	pcs		
PPR Pipe 1" Pn40	12.00	pcs		
PPR Pipe 3/4" Pn40	26.00	pcs		
Submersible Pump 0.5 hp, single phase 220v	1.00	pc		
IBC Tank	1.00	cu.m.		
PE Hose 1/2 inch dia.	30.00	m		
PE tee 1/2 inch dia	1.00	pcs		
Mechanical Floater	11.00	pcs		
PPR Reducer 3/4 x 1/2" bushing	10.00	pcs		
2) Labor				
Skilled	10.00	days		
Labor	10.00	days		
			Total Cost	
			Unit Cost	/lot



B. PROGRAM OF WORKS				
Particulars	Quantity	Unit	Unit Rate	Total Cost
IV.G. ELECTRICAL				
Quantity =	1.00	lot		
1) Materials				
Panel Board, 50Amp 220 V, 2P, main CB	1	unit		
4 Holes branches, Nema Closure branches circuit breaker				
20 AT Ckt breaker	2	pair		
30 AT Ckt breaker	2	pairs		
Wires				
8.0 mm2 THHN Wires	40	meters		
3.5 mm2 THHN Wires	1	rolls		
2.0 mm2 THHN Wires	3	rolls		
Pipes and Fittings				
PVC Pipe 1/2"	170.00	pcs		
PVC Pipe 3/4"	2.00	pcs		
Entrance Cap 3/4"	1.00	pcs		
Utility Box	6.00	pcs		
4 x 4 Junction Box	6.00	bag		
Devices				
15 Watts LED bulb	15.00	pcs		
Three Gang Switch	3.00	sets		
Duplex Convenience Outlet (weather proof)	8.00	sets		
Duplex Convenience Outlet (drop type)	4.00	sets		
E-27 Receptacle 4"	15.00	pcs		
Electrical Tape	5.00	pcs		
2) Labor				
Skilled	10.00	days		
Labor	10.00	days		
Total Cost				
Unit Cost				/lot



B. PROGRAM OF WORKS				
Particulars	Quantity	Unit	Unit Rate	Total Cost
V. WATERWASTE TREATMENT FACILITY				
V.A REINFORCED CONCRETE WORKS				
Quantity =	19.19	cu.m.		
1) Materials				
Portland Cement (40KG)	110	bags		
Sand (S1)	6.00	cu.m.		
Gravel (G-3/4)	12.00	cu.m.		
Rebars				
10 mm Ø x 6.0 m	52.00	pcs		
G.I. Tie Wire #16	6.00	kgs.		
Assorted CWN	5.00	kgs.		
Equipment Rental				
Bagger Concrete Mixer	5.00	days		
Concrete Vibrator	5.00	days		
2) Labor				
a. Pouring of Concrete				
Skilled	7.00	days		
Labor	7.00	days		
b. Rebars (cut, bend & place)				
Skilled	2.00	days		
Labor	2.00	days		
c. Forms (fab.,installation & removal)				
Skilled	2.00	days		
Labor	2.00	days		
			Total Cost	
			Unit Cost	/cu.m.



B. PROGRAM OF WORKS				
Particulars	Quantity	Unit	Unit Rate	Total Cost
V.B. MASONRY WORKS, PLASTERING AND PLUMBING				
Quantity =	56.00	sqm		
1) Materials				
6" thick Concrete Hollow Blocks	770.00	pcs		
Portland Cement (40kg)	56.00	bag		
Washed Sand (S-1)	6.00	cu.m.		
10mm Ø x 6m Deformed Steel Bar	53.00	pc		
GI Tie Wire #16	3.00	kg		
6 in.PVC Set with Cleanout	3.00	pcs		
2) Labor				
Skilled	6.00	days		
Labor	6.00	days		
			Total Cost	
			Unit Cost	/sqm
DIRECT COST				
a. MATERIAL COST				
b. LABOR COST				
c. GENERAL REQUIREMENTS 01				
d. GENERAL REQUIREMENTS 02				
e. TOTAL DIRECT COST			(a+b+c+d)	
INDIRECT COST				
f. O.C.M.			15% (a+b)	
g. PROFIT			10% (a+b+d)	
h. TAX			5% (e+f+g)	
i. TOTAL INDIRECT COST			(f+g+h)	
TOTAL ESTIMATED COST				(e+i)