

PROJECT : REGIONAL FOOD TERMINAL (RFT)
LOCATION : LINGAYEN PANGASINAN

BILL OF MATERIALS AND COST ESTIMATES

QTY	UNIT	DESCRIPTION	UNIT COST	TOTAL COST
A. COLUMN, FOOTING, GRADE AND ROOF BEAM				
835.00	bags	portland cement		
47.00	m³	fine sand		
94.00	m³	gravel 3/4		
620.00	pcs	16mmØx7.50m deformed bar		
240.00	pcs	12mmØx7.50m deformed bar		
1,275.00	pcs	10mmØx6m deformed bar		
200.00	kilos	tie wire		
50.00	pcs	1/2' thickx1.22mx2.44m plywod		
625.00	pcs	2"x3"x12' coco-lumber		
375.00	pcs	2"x2"x12' coco-lumber		
120.00	cls	assorted common wire nail		
		Materials cost		
		Labor cost		
135.00	m³	Excavation		
130.00	m³	earth fill materials		
944.00	m³	Sub grade (0.50m thick)		
		SUB TOTAL		
B. CONCRETE WALLS, DRAINAGE LINE, SEPTIC VAULT, TILES AND FLOORING				
1. CHB WALL				
5,000.00	pcs	6"X8"X16" concrete hollow blocks		
285.00	pcs	12mmØx6m deformed bar		
13.00	kilos	tie wire		
540.00	bags	portland cement		
60.00	m³	fine sand		
2. WALL FOOTING -CHB				
80.00	pcs	10mmØx6m deformed bar		
7.00	kilos	tie wire		
110.00	bags	portland cement		
6.00	m³	fine sand		
12.00	m³	gravel 3/4		
3. DRAINAGE LINE				
40.00	pcs	6"Ø X 3m pvc pipe		
80.00	pcs	4"Ø X 3m pvc pipe		
40.00	pcs	4"Ø x 90deg elbow		
16.00	pcs	tee 4"Ø WYE		
1.00	lot	consumables		
1.00	lot	catch basin		
30.00	pcs	18" diameter RCCP		
6.00	units	manhole for 18" diameter drainage line		
5.00	sets	IGU Floor drain		
4. SEPTIC VAULT AND HOLDING TANK				
320.00	pcs	4"X8"X16" concrete hollow blocks		
40.00	pcs	10mmØx6m deformed bar		
3.00	kilos	tie wire		
50.00	bags	portland cement		
5.00	m³	fine sand		
2.00	m³	gravel 3/4		
5. FLOORING				
770.00	bags	portland cement		
43.00	m³	fine sand		

85.00	m³	gravel 3/4		
890.00	pcs	10mmØx6m deformed bar		
45.00	kilos	tie wire		
110.00	ln.m	Vapor Barrier		
545.00	cu.m	Gravel Fill (0.85m thick)		
1.00	lot	Steel and Stainless Steel Railings		
6. TILES				
150.00	pcs.	24" x 24" un-glazed Ceramic tiles		
90.00	pcs.	24" x 24" glazed Ceramic tiles		
21.00	bags	ABC grout (2 kgs/bag)		
10.00	sacks	tile adhesive		
20.00	bags	portland cement		
2.00	m³	gravel 3/4		
1.00	m³	fine sand		
1.00	lot	tile trim		
7. PU SANDWICH PANEL for CEILING AND WALLS				
FOR WALLS				
623.00	m²	PU profile x 0.50mm D/S 100mm PU/PPGI		
FOR CEILING				
540.00	m²	PU profile x 0.50mm D/S 100mm PU/PPGI		
125.00	tubes	sealant		
Concrete stand				
40.00	pcs	Steel Drum (empty)		
37.00	cu.m	Gravel 3/4"		
19.00	cu.m	Fine sand		
174.00	pcs.	12mmØ x 6m def. Bar		
384.00	pcs.	10mmØ x 6m Def. Bar		
22.00	kls.	tie wire #6		
73.00	bags	Portland cement		
15.00	pcs	Cutting disk		
1.00	tins	red oxide paint		
2.00	tins	Quick dry enamel paint		
8.00	pcs.	Paint brush 4"		
2.00	pcs.	paint tray		
14.00	pcs	4.5mmx2"x 6m angular bar		
1.00	box	Welding rod		
28.00	cu.m	Sub grade (0.25m thick)		
28.00	cu.m	Gravel Fill (0.25m thick)		
		Materials cost		
		Labor cost		
1.00	lot	delivery charge		
		SUB TOTAL		
C. CARPENTRY, STEEL, ROOFING, GLASS AND ALUMINUM WORKS				
1. CARPENTRY				
77.00	pcs	5mmx 1.2m x2.44m plywood for ceiling		
435.00	pcs	2"x2"x10' good lumber		
50.00	pcs	3"x3"x3m corner moulding s4s		
20.00	kilos	common wire nail		
2. GLASS WINDOWS				
4.00	sets	glass sliding window on alum frame		
2.00	sets	glass awning window on alum frame		
3. DOORS				
2.00	sets	glass door		
3.00	sets	flush door		
7.00	sets	panel door		
1.00	set	single swing steel door using 3mm Ø x 2' welded wire on steel frame		
1.00	set	double swing steel door (louver type)		
1.00	lot	toilet partition		

1.00	lot	accessories		
4. TRUSSES AND ROOFING AND WELDED WIRE				
96.00	pcs	4.5mmx2"x 6m angular bar		
47.00	pcs	4.5mmx1 1/2"x 6m angular bar		
225.00	pcs	Gal8x2"x4"x6m cee purlin		
1,344.00	lm	0.60mmx1.00mxlength pre painted roof		
70.00	pcs	0.5m thick ord. type stainless gutter		
35.00	pcs	0.5mm thick pre painted end flashing		
25.00	pcs	0.5mm thick pre painted ridge roll		
12,000.00	pcs	self drilling screw		
1,500.00	pcs	blind rivet		
30.00	tubes	sealant		
5.00	box	welding rod		
50.00	pcs	12 mm Ø sag rod		
5.00	pcs	3/16x1"x6m angular bar		
70.00	pcs	12" width sanepa		
19.00	rolls	10mm x 50m single sided roof insulation		
50.00	kilos	tie wire		
10.00	gals	rugby		
30.00	pcs	2'Øx6 m gi pipe		
1,400.00	pcs	0.4mm thk x .125 m x 1.2 m spandrel		
100.00	pcs	corner moulding		
6.00	rolls	3mmØx2"x2"x20' welded wire		
210.00	m²	elastomeric waterproofing		
		Materials cost		
		Labor cost		
		SUB TOTAL		
D. PLUMBING WORKS				
5.00	sets	T&B Standard with lavatory		
10.00	sets	Lavatory		
1.00	lot	water line		
1.00	lot	water line for fire hose cabinets		
1.00	lot	overhead water tank		
1.00	lot	pressure tank w/ 1.5hp motor pump		
4.00	sets	fire hose cabinet with hose and nozzle		
3.00	rolls	PE Pipe 2"		
2.00	pcs	gate valve 2"		
1.00	pcs	water meter		
2.00	pcs	saddle clamp 2"		
		Materials cost		
		Labor cost		
		SUB TOTAL		
E. PAINTING WORKS				
5.00	tins	flat latex paint		
9.00	tins	gloss latex paint		
7.00	gals	Concrete neutralizer		
15.00	tins	flat wall enamel white		
15.00	tins	red oxide primer		
35.00	tins	quick dry enamel paint		
6.00	gals	glazing putty		
50.00	gals	Epoxy enamel		
25.00	gals	Epoxy primer		
22.00	gals	thinner		
15.00	pcs.	Roller Brush 9"		
25.00	pcs.	Paint brush 4"		
1.00	lot	consumables		
		Materials cost		
		Labor cost		
		SUB TOTAL		

F. PERIMETER FENCE WORKS				
640.00	pcs	4"X8"X16" concrete hollow blocks		
16.00	pcs	12mmØx6m deformed bar		
105.00	pcs	10mmØx6m deformed bar		
2.00	kilos	tie wire		
145.00	bags	portland cement		
12.00	m³	fine sand		
9.00	m³	gravel 3/4		
28.00	pcs	G. I Pipe 2" x 6m Schedule 40		
30.00	pcs	G. I Pipe 1 1/2" x 6m Schedule 40		
42.00	pcs	Rectangular bar 10mm x 10mm x 6m		
84.50	In.m	Gauge 10 – Galvanized Cyclone Wire 5'		
338.00	In.m	Gauge 12.5 Galvanized Barbed Wire – 3 Strands		
5.00	box	Welding rod		
10.00	pcs	Cutting disk		
1.00	tins	red oxide primer		
2.00	tins	quick dry enamel paint		
20.00	pcs.	Paint brush 4"		
1.00	lot	Sliding Gate (10m length)		
		Materials cost		
		Labor cost		
		SUB TOTAL		
G. SHEET PILE WORKS				
227.00	pcs	Sheet Pile Type 2 x 6m length		
16.00	pcs	G. I Pipe 2" x 6m Schedule 40		
32.00	pcs	G. I Pipe 1 1/2" x 6m Schedule 40		
42.00	pcs	Rectangular bar 10mm x 10mm x 6m		
90.70	In.m	Gauge 10 – Galvanized Cyclone Wire 4'		
362.80	In.m	Gauge 12.5 Galvanized Barbed Wire – 3 Strands		
5.00	box	Welding rod		
10.00	pcs	Cutting disk		
2.00	tins	red oxide primer		
4.00	tins	quick dry enamel paint		
20.00	pcs.	Paint brush 4"		
		Materials cost		
		Labor cost		
		SUB TOTAL		
H. EVAPORATOR PLATFORM WORKS				
16.00	pcs	WF 4x4x7mm		
20.00	pcs	4.5mmx2"x 6m angular bar		
7.00	pcs	G. I Pipe 2" x 6m Schedule 40		
17.00	pcs	G. I Pipe 1 1/2" x 6m Schedule 40		
1.00	lot	Base plate with anchor bolt		
1.00	lot	Steel grating		
2.00	box	Welding rod		
10.00	pcs	Cutting disk		
12.00	pcs	12mmØx6m deformed bar		
84.00	pcs	10mmØx6m deformed bar		
10.00	kilos	tie wire		
102.00	bags	portland cement		
6.00	m³	fine sand		
12.00	m³	gravel 3/4		
1.00	tins	red oxide primer		
2.00	tins	quick dry enamel paint		
5.00	pcs.	Paint brush 4"		
		Materials cost		
		Labor cost		
		SUB TOTAL		

F.ELECTRICAL WORKS				
		PANEL BOARDS:		
1	ASSY	ATS PANEL		
		Breaker:		
		2 - 630AT, 3P, 630AF, 230V, 85KAIC, MCCB		
		Accessories: ATS Standard Intelligence , Normal and Emergency Pilot Lights (Red & Green), Manual Auto and Auto Test Switch, etc.		
		Enclosure: Nema12, Powder Coated Gray, Panel name, Pushlock, Complete w/ Lugs, Busbar Extension & Grounding Busbar,		
1	ASSY	DP PANEL		
		MAIN:		
		1 - 630AT, 3P, 630AF, 230V, 85KAIC, MCCB		
		BRANCHES:		
		1 - 175AT, 3P, 250AF, 230V, 50KAIC, MCCB		
		1 - 125AT, 3P, 250AF, 230V, 50KAIC, MCCB		
		2 - 100AT, 3P, 100AF, 230V, 25KAIC MCCB		
		1 - 80AT, 3P, 100AF, 230V, 25KAIC MCCB		
		1 - 60AT, 3P, 100AF, 230V, 25KAIC MCCB		
		2 - 50AT, 3P, 100AF, 230V, 25KAIC, MCCB		
		1 - 30AT, 3P, 100AF, 230V, 25KAIC, MCCB (For SPD)		
		2 - 30AT, 2P, 100AF, 230V, 15KAIC, MCCB		
		Accessories: Digital Power Meter , Pilot Lights (Red & Green), & Surge Protection Device (80kA Surge Current, 3Phase, 3 Wire + Ground, 230V)		
		Enclosure: Nema12, Powder Coated Gray, Panel name, Push lock, ckt directory, Complete w/ Lugs & Grounding Busbar		
1	ASSY	RSP PANEL		
		MAIN:		
		1 - 175AT, 3P, 250AF, 230V, 50KAIC, MCCB		
		BRANCHES:		
		4 - 75AT, 3P, 100AF, 230V, 25KAIC, MCCB		
		1 - 50AT, 3P, 100AF, 230V, 25KAIC, MCCB		
		2 - 40AT, 3P, 100AF, 230V, 25KAIC, MCCB		
		5 - 30AT, 3P, 100AF, 230V, 25KAIC, MCCB		
		2 - 30AT, 2P, 100AF, 230V, 15KAIC, MCCB		
		2 - 20AT, 2P, 100AF, 230V, 15KAIC, MCCB		
		Accessories: Pilot Lights (Red & Green)		
		Enclosure: Nema12, Powder Coated Gray, Panel name, Push lock, ckt directory, Complete w/ Lugs & Grounding Busbar		

1	ASSY	PPLP PANEL		
		MAIN:		
		1 - 60AT, 3P, 250AF, 230V, 25KAIC, MCCB		
		BRANCHES:		
		1 - 30AT, 2P, 100AF, 230V, 15KAIC, MCCB		
		13 - 20AT, 2P, 100AF, 230V, 15KAIC, MCCB		
		Accessories: Pilot Lights (Red & Green)		
		Enclosure: Nema12, Powder Coated Gray, Panel name, Push lock, ckt directory, Complete w/ Lugs & Grounding Busbar		
1	ASSY	ECB MAIN 700AT, 3P, 800AF, 230V, 85KAIC, MCCB		
		Enclosure: Nema3R, Powder Coated Gray, Push lock, Rubber Gasket, Panel name, Complete w/ Lugs, Extension Busbar & Grounding Busbar,		
1	ASSY	ECB - 150AT, 3P, 100AF, 230V, 50KAIC, MCCB (PROVISION FOR 4 UNITS OF 40' REFRIGERATED CONTAINER VANS)		
		Enclosure: Nema12, Powder Coated Gray, Push lock, Panel name, Complete w/ Lugs & Grounding Busbar		
1	ASSY	ECB - 30AT, 2P, 100AF, 230V, 15KAIC, MCCB (For 2Hp Aircon)		
		Enclosure: Nema3R, Powder Coated Gray, Push lock, Rubber Gasket, Panel name, Complete w/ Lugs & Grounding Busbar		
1	ASSY	ECB - 20AT, 2P, 100AF, 230V, 15KAIC, MCCB (For 1Hp Aircon)		
		Enclosure: Nema3R, Powder Coated Gray, Push lock, Rubber Gasket, Panel name, Complete w/ Lugs & Grounding Busbar		
1	ASSY	ECB - 80AT, 3P, 100AF, 230V, 25KAIC MCCB (For 10Hp Air Compressor)		
		Enclosure: Nema3R, Powder Coated Gray, Push lock, Rubber Gasket, Panel name, Complete w/ Lugs & Grounding Busbar		
2	ASSY	ECB - 50AT, 3P, 100AF, 230V, 25KAIC MCCB (For Blast Freezer & Pack. Machine)		
		Enclosure: Nema3R, Powder Coated Gray, Push lock, Rubber Gasket, Panel name, Complete w/ Lugs & Grounding Busbar		
2	ASSY	ECB - 20AT, 3P, 100AF, 230V, 25KAIC MCCB (For CCTV & FACP)		
		Accessories: Surge Protection Device (20kA Surge Current, Single Phase, 2 Wire + Ground, 230V)		
		Enclosure: Nema12, Powder Coated Gray, Push lock, Panel name, Complete w/ Lugs & Grounding Busbar		

4	ASSY	DOL Starter - 75AT, 3P, 100AF, 230V, 25KAIC MCCB (For 7.5 Hp, 3Ø, Condensing Unit)		
		Accessories: Magnetic Contactor, OL Relay, Start and Stop Push Button, Pilot Lights, etc.		
		Enclosure: Nema3R, Powder Coated Gray, Push lock, Rubber Gasket, Panel name, Complete w/ Lugs & Grounding Busbar		
1	ASSY	DOL Starter - 50AT, 3P, 100AF, 230V, 25KAIC MCCB (For 5 Hp, 3Ø, Condensing Unit)		
		Accessories: Magnetic Contactor, OL Relay, Start and Stop Push Button, etc.		
		Enclosure: Nema3R, Powder Coated Gray, Push lock, Rubber Gasket, Panel name, Complete w/ Lugs & Grounding Busbar		
5	ASSY	DOL Starter - 30AT, 3P, 100AF, 230V, 25KAIC MCCB (For 3 Hp, 3Ø, Condensing Unit)		
		Accessories: Magnetic Contactor, OL Relay, Start and Stop Push Button, Pilot Lights, etc.		
		Enclosure: Nema3R, Powder Coated Gray, Push lock, Rubber Gasket, Panel name, Complete w/ Lugs & Grounding Busbar		
1	ASSY	DOL Starter - 30AT, 2P, 100AF, 230V, 15KAIC MCCB (For 1 Hp, 1Ø, Booster Pump)		
		Accessories: Magnetic Contactor, OL Relay, Start and Stop Push Button, Pilot Lights, etc.		
		Enclosure: Nema3R, Powder Coated Gray, Push lock, Rubber Gasket, Panel name, Complete w/ Lugs & Grounding Busbar		
LIGHTING & WIRING DEVICES:				
82	sets	Ceiling Mounted Lighting Fixtures w/ Cover Batten Type, IP65, w/ T8 LED Tube Light 2X18W, Daylight (6500K), 230Vac, 50000H, 1800 Lumen/Tube Light, 1200mm Length		
32	sets	15W LED Downlight, Daylight (6500K), 230Vac, 1300 Lumen (165mmØ), 15000H, Polycarbonate Material		
9	sets	36W LED Panel Light, 600x600mm, Daylight (6500K), 230Vac, 3400 Lumen, 25000H		
6	sets	50W LED Flood Light, Daylight (6500K), 230Vac, 5000 Lumen, 30000H, IP65		
6	sets	10W LED Flood Light, Daylight (6500K), 230Vac, 1000 Lumen, 30000H, IP65		
5	sets	Ceiling Mounted Exhaust Fan, 12", 40W		
11	sets	Single-Faced Exit Light with Wall/Ceiling Mount Option with Ni-CD Battery, 3 Hours Usage		
16	sets	2X3W LED Emergency Light, 2 Heads, 230V, Sealed Lead Acid Battery, 17 Hours Usage Duration w/ Simplex Outlet		
2	sets	Industrial Exhaust Fan 16", 120W, 230V, 1Ø, with safety shutter		

20	sets	1 Gang Switch, 16Amps, 230V		
4	sets	1 Gang Switch, 16Amps, 230V, Weather Proof Type		
8	sets	2 Gang Switch, 16Amps, 230V		
2	sets	1 Gang 3 way-Switch, 16Amps, 230V		
2	sets	2 Gang 3 Way-Switch, 16Amps, 230V		
24	sets	16A, Universal Duplex C.O., with Ground, Weather Proof Type		
14	sets	16A, Universal Duplex C.O., with Ground		
		Solar Powered LED Perimeter Light:		
15	sets	4m Metallic post with arm, Hot Dipped Galvanized Finish, Complete with Baseplate, Anchor Bolt, Nut and Washer		
15	sets	30W Compact Solar Powered LED Street Light		
		Features:		
		Solar Panel: 30W, Monocrystalline, Battery: LiFePO4 Lithium-Ion Battery, Charging Time: 5-6 hours, Working Time: 12 hours per day, 3-5 Rainy Days, Working Temperature: Range (°C) -30°C ~ +70°C, Working Model: 100% brightness normal operation		
		LED Chip: SMD 3030 Philips/Lumileds, Light Output: 3300lumen/20W, Life time: 50,000 hours, IP Rating: IP65, Beam Angle: 80°-140°, CCT: 6500K daylight, Mounting Height: 4.5meters, Warranty: min. 2 years		
		WIRES & PIPES:		
253.0	lgth	PVC Conduit 1/2" Ø x 3m		
15.0	lgth	PVC Conduit 3" Ø x 3m		
45.0	lgth	PVC Wire Moulding 1/2" x 3m		
6.0	lgth	IMC Conduit 3" Ø x 3m		
16.0	lgth	IMC Conduit 1-1/2" Ø x 3m		
43.0	lgth	IMC Conduit 1-1/4" Ø x 3m		
25.0	lgth	IMC Conduit 1" Ø x 3m		
22.0	lgth	IMC Conduit 1/2" Ø x 3m		
8.0	m	Flexible Metallic Conduit (FMC 1-1/2"Ø)		
2.0	m	Flexible Metallic Conduit (FMC 1-1/4"Ø)		
10.0	m	Flexible Metallic Conduit (FMC 1"Ø)		
2,220.0	m	3.5mm ² THHN Wire		
25.0	m	5.5mm ² THWN Wire		
150.0	m	8.0mm ² THHN Wire		
15.0	m	14.0mm ² THHN Wire		
80.0	m	22.0mm ² THHN Wire		
10.0	m	30.0mm ² THHN Wire		
130.0	m	60.0mm ² THHN Wire		
10.0	m	150.0mm ² THHN Wire		
180.0	m	175.0mm ² THHN Wire		
1,107.0	m	3.5mm ² THWN Wire (G)		
31.0	m	5.5mm ² THWN Wire (G)		
5.0	m	8.0mm ² THHN Wire (G)		
45.0	m	14.0mm ² THHN Wire (G)		
5.0	m	30.0mm ² THHN Wire (G)		
60.0	m	50.0mm ² THHN Wire (G)		
65.0	m	14.0mm ² X4G (3C+G) PVC Insulated and Jacketed		
120.0	m	8.0mm ² X 3G (2C+G) PVC Insulated and Jacketed		
35.0	m	8.0mm ² X4G (3C+G) PVC Insulated and Jacketed		
150.0	m	5.5mm ² X4G (3C+G) PVC Insulated and Jacketed		

		ELECTRICAL BOXES:		
170.0	sets	J-Box 4"X4" (Metallic) with cover		
120.0	sets	Utility Box 4"X2" (Metallic) with cover		
5.0	sets	Metallic Pullbox 300mmX300mm with cover		
		GROUNDING SYSTEM:		
140.0	m	Grid Line Grounding 80mm ² Bare Copper Wire		
130.0	m	Equipment Grounding 30mm ² Insulated Wire (green)		
		Grounding Copper Busbar (1/4" X 1-1/2") W/ Busbar		
3.0	sets	Insulator		
		Ground Inspection Pit, Concrete Body w/ Ground Rod		
4.0	sets	Copper Bonded (10' X 3/4 " Ø)		
25.0	points	Exothermic Welding Connection		
60.0	points	30mm ² Terminal Lugs (crimping type)		
3.0	points	80mm ² Terminal Lugs (crimping type)		
		OTHERS:		
1.0	unit	Concrete Pedestal (0.5X0.5X6m) w/ 5/8"Ø Oval Eye Bolt		
1.0	units	Concrete Handhole 0.5X0.5X0.5m with Cover		
6.0	m	Concrete Encasement 0.2X0.3m		
5.0	lgth	150mmW x 150mmD x 3m Cable Tray Ga. 16 Galvanized Iron, Complete with Cover and Connected.		
1.0	lot	Pipe and Cabletray Support & Fittings.		
1.0	lot	Chipping, Restoration and Excavation Works		
1.0	lot	Miscellaneous & Consumables		
		TOTAL MATERIAL COST :		
		LABOR COST :		
		Testing & Commissioning:		
		SUB TOTAL :		

G. SUPPLY, DELIVERY, INSTALLATION AND TESTING COMMISSIONING OF GENERATOR SET																																													
1	SET	165KVA, 3W+G Standby Electric Generator Set, Silent Type, Three Phase, 220V , 60Hz, 1800 RPM, complete with Standby Battery Charger.																																											
		<table><tr><td colspan="2">ALTERNATOR:</td></tr><tr><td>Frequency</td><td>60Hz</td></tr><tr><td rowspan="3">Output Rating</td><td>135KVA Continuous</td></tr><tr><td>150KVA Prime</td></tr><tr><td>165KVA Standby</td></tr><tr><td>No. of Phase</td><td>3 Phase (3 Wire + Ground)</td></tr><tr><td>Rated Voltage</td><td>200~240V</td></tr><tr><td>Power Factor</td><td>0.8 (Lagging)</td></tr><tr><td>Voltage Regulation</td><td>Within +/- 1.5%</td></tr><tr><td>Excitation</td><td>Brushless, Rotating Exciter (with A.V.R.)</td></tr><tr><td>Insulation</td><td>Class H</td></tr><tr><td colspan="2">Engine:</td></tr><tr><td>Type</td><td>Vertical Inline, Water-cooled, 4-Stroke Direct Injected, Turbo Intercooler, Air intercooler</td></tr><tr><td>Output Rating</td><td>136kW/1800rpm</td></tr><tr><td>Piston Displacement</td><td>6.5L</td></tr><tr><td>Fuel</td><td>ASTM No.2 Diesel Fuel or Equivalent</td></tr><tr><td>Lube Oil Capacity</td><td>17.5L</td></tr><tr><td>Coolant Capacity</td><td>40L</td></tr><tr><td>Battery Capacity</td><td>12V-150Ah (2pcs)</td></tr><tr><td>Fuel Tank Capacity</td><td>250L</td></tr><tr><td colspan="2">Unit Dimension and Weight: (Verify to supplier)</td></tr><tr><td colspan="2">Sound Level: 77dB @ 7m</td></tr></table>	ALTERNATOR:		Frequency	60Hz	Output Rating	135KVA Continuous	150KVA Prime	165KVA Standby	No. of Phase	3 Phase (3 Wire + Ground)	Rated Voltage	200~240V	Power Factor	0.8 (Lagging)	Voltage Regulation	Within +/- 1.5%	Excitation	Brushless, Rotating Exciter (with A.V.R.)	Insulation	Class H	Engine:		Type	Vertical Inline, Water-cooled, 4-Stroke Direct Injected, Turbo Intercooler, Air intercooler	Output Rating	136kW/1800rpm	Piston Displacement	6.5L	Fuel	ASTM No.2 Diesel Fuel or Equivalent	Lube Oil Capacity	17.5L	Coolant Capacity	40L	Battery Capacity	12V-150Ah (2pcs)	Fuel Tank Capacity	250L	Unit Dimension and Weight: (Verify to supplier)		Sound Level: 77dB @ 7m		
ALTERNATOR:																																													
Frequency	60Hz																																												
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	150KVA Prime																																												
	165KVA Standby																																												
No. of Phase	3 Phase (3 Wire + Ground)																																												
Rated Voltage	200~240V																																												
Power Factor	0.8 (Lagging)																																												
Voltage Regulation	Within +/- 1.5%																																												
Excitation	Brushless, Rotating Exciter (with A.V.R.)																																												
Insulation	Class H																																												
Engine:																																													
Type	Vertical Inline, Water-cooled, 4-Stroke Direct Injected, Turbo Intercooler, Air intercooler																																												
Output Rating	136kW/1800rpm																																												
Piston Displacement	6.5L																																												
Fuel	ASTM No.2 Diesel Fuel or Equivalent																																												
Lube Oil Capacity	17.5L																																												
Coolant Capacity	40L																																												
Battery Capacity	12V-150Ah (2pcs)																																												
Fuel Tank Capacity	250L																																												
Unit Dimension and Weight: (Verify to supplier)																																													
Sound Level: 77dB @ 7m																																													
		Warranty on Parts and Services: Two(2) years or 2,000 running hours, whichever comes first.																																											
		TOTAL MATERIAL COST :																																											
		LABOR COST :																																											
		Testing & Commissioning :																																											
		DENR - Permit To Operate (PTO) Application :																																											
		SUB TOTAL :																																											
H. Application for New Electric Service Connection, including Bill Deposit and Meter Deposit Payments to the Electric Utility Company and secure CFEI from the LGU.																																													

I. FDAS WORKS			
EQUIPMENT:			
1	set	Furnishing, Delivery, Installation of Addressable Fire Alarm Control Panel (FACP)	
		Specs and Features: 1 loop, supports atleast 100 addressable devices, with history log, backlit LCD display, surface mounting, operating voltage 230V and with standby battery capacity atleast 2 hours usage.	
ADDRESSABLE DEVICES:			
24	pcs	Smoke Detector Addressable, Photoelectric Obscuration, Spot Type, With Twin Red/Green Status Led, With Fault Isolator And Mounting Base (Ceiling Mounted)	
2	pcs	Heat Detector, Addressable, Combination Fixed And Rate Of Rise Type With Twin Red/Green Status Led, Fault Isolator And Audible Mounting Base.	
12	pcs	Alarm Horn, Combination Sounder And Strobe Light Horn -Field Programmable, Capable Of Emitting Single Tone Sound Output Strobe - Capable Of Delivering An Intensity Not Less Than 75 Candela.	
12	pcs	Manual Initiating Devices, Addressable Type, Non-Break Glass Double Action, Manual Pull Type With Key-Lock Reset Feature, Red Finish With Distinct Marking	
CABLES & PIPES:			
2	box	#18 TF Twisted Pair Wire (black and white) - 150m/box	
70	lgth	PVC Conduit 1/2" Ø	
15.00	lgth	EMT 1/2"	
Power Supply:			
6	m	3.5mm ² THWN Wire	
3	m	3.5mm ² THWN Wire (G)	
1	lgth	EMT 1/2"	
OTHERS:			
50	sets	Metallic Square Box 4"x4" with cover	
1	lot	Support & Fittings	
1	lot	Miscellaneous & Consumables	
		TOTAL MATERIAL COST :	
		LABOR COST :	
		Testing & Commissioning:	
		Permit Application to Bureau of Fire Protection (BFP) for Fire Safety Installation Clearance Certificate:	
		SUB TOTAL :	

J.CCTV WORKS			
	EQUIPMENT:		
1	set	Network Video Recorder (NVR) 32-ch, 4 K MAC Address – Features: 32ch 8mp, IP Camera input, H.265+ video format, 1 HDMI and 1 VGA interfaces support independent video output, 4 HDD slot max of 10TB, and Up to 256 Mbps incoming bandwidth.	
1	set	UPS/AVR 1000VA/600W, with 4 x Universal Socket, LED Indicators,	
1	set	CCTV Video LED Monitor 43" UHD 4K, with Mouse & Key Board	
1	unit	PoE Switch, 24 Ports Fast Ethernet, Unmanaged, 24 100Mbps PoE Ports, 1 Gigabit uplink port, 1 Gigabit Fiber Optical Port, PoE power budget 370W, max. 300m Long Range Transmission.	
4	pcs	6TB CCTV HDD Skyhawk Seagate	
	Boxes/Enclosure:		
1	set	IDF(Intermediate Distribution Frame) / Data Cabinet 2Ft. Wall Mounted.	
22	sets	Metallic Square Box 4"X4" with cover	
	DEVICES:		
10	units	Dome Type CCTV I.P. Camera - High quality imaging with 4MP resolution, Clear imaging against strong backlight due to 120dB WDR technology, Efficient H.265+ compression technology, Water and dust resistant (IP67) and vandal resistant (IK10), Focus on human and vehicle targets classification based on deep learning.	
8	units	Bullet Type CCTV I.P. Camera - High quality imaging with 4MP resolution, Clear imaging against strong backlight due to 120dB WDR technology, Efficient H.265+ compression technology, Built-in microphone for real-time audio security; Water and dust resistant (IP67);Focus on human and vehicle targets classification based on deep learning.	
	Cables & Pipes:		
4	box	Cat6 Cable UTP Unshielded, 4 Pairs, 24 AWG (305m/box)	
180	lgth	PVC Conduit 1/2" Ø	
	Power Supply:		
6	m	3.5mm2 THWN Wire	
3	m	3.5mm2 THWN Wire (G)	
1	lgth	EMT 1/2"	
	OTHERS:		
1	lot	Support & Fittings (Pipe Clamps, Hangers, CCTV Brackets, PVC adaptor, Coupling, Elbow, etc.)	
1	lot	Miscellaneous materials (UTP Connectors, Modular Transceiver/Receiver, Patch Cord 3M, Duplex Universal Outlet with Ground)	
1	lot	Consumables (Electrical Tape, Cable Tie, Tox and screw, G.I wire, Cable Tag, Paper tape, meca tube, etc.)	
		TOTAL MATERIAL COST :	
		LABOR COST :	
		Testing & Commissioning:	
		SUB TOTAL :	

K. Refrigeration System and Loading Equipment				
Supply and Installation of Loading Equipment:				
1	sets	Insulated Sectional Door (Manually operated) w/ 2 Viewing Window, 2.8mH x 2.5mW x 75mmThk complete with accessories		
4	sets	Insulated Sectional Door (Manually operated) w/ 1 Viewing Window, 2.1mH x 1.6mW x 75mmThk complete with accessories		
1	sets	Dock Seal for Opening 2.8mH X 2.5mW		
4	sets	Dock Seal for Opening 2.1mH X 1.6mW		
5	sets	Dock Rubber Bumper		
1	sets	Polyurethane Insulated Double Swing Door 2.0mWx2.4mHx75mmThk complete with accessories		
1	sets	Polyurethane Insulated Single Sliding Door 1.5mWx2.4mHx75mmThk complete with accessories		
3	sets	Polyurethane Insulated Single Sliding Door 1.5mWx2.1mHx75mmThk complete with accessories		
6	set	Polyurethane Insulated Single Swing Door 0.9mWx2.1mHx75mmThk complete with accessories		
1	sets	PVC plastic curtain 2mmthk x 200mW (2.8mH x 2.5mW)		
4	sets	PVC plastic curtain 2mmthk x 200mW (2.1mH x 1.6mW)		
6	sets	PVC plastic curtain 2mmthk x 200mW (2.1mH x 0.9mW)		
3	sets	PVC plastic curtain 2mmthk x 200mW (2.1mH x 1.5mW)		
1	sets	PVC plastic curtain 2mmthk x 200mW (2.4mH x 1.5mW)		
1	sets	PVC plastic curtain 2mmthk x 200mW (2.4mH x 2mW)		
		TOTAL MATERIAL COST :		
		LABOR COST :		
1.00	load	Delivery:		
		SUB TOTAL :		
Supply and Installation of Refrigeration Equipment:				
		Packaging Area (5°C ~ 10°C)		
2	sets	1 unit of R-507 Condensing Unit (7.5HP, 3Ø, 220v, 60HZ) Including Metallic Mounting Base.		
		1 unit of Unit Cooler/Evaporator (Ceiling Hanger Type)		
		1 lot of Valves & Control Device		
		1 lot complete mechanical installation including refrigeration piping, insulations, hangers & support, bracket, & platforms.		
		1 lot refrigerant & oil charge.		
		Processing Area (5°C ~ 10°C)		
2	sets	1 unit of R-507 Condensing Unit (7.5HP, 3Ø, 220v, 60HZ) Including Metallic Mounting Base.		
		1 unit of Unit Cooler/Evaporator (Ceiling Hanger Type)		
		1 lot of Valves & Control Device		
		1 lot complete mechanical installation including refrigeration piping, insulations, hangers & support, bracket, & platforms.		
		1 lot refrigerant & oil charge.		

		Receiving Area (5°C ~ 10°C)		
1	set	1 unit of R-507 Condensing Unit (5HP, 3Ø, 220v,60HZ) Including Metallic Mounting Platform.		
		1 unit of Unit Cooler/Evaporator (Ceiling Hanger Type)		
		1 lot of Valves & Control Device		
		1 lot complete mechanical installation including refrigeration piping, insulations, hangers & support, bracket, & platforms.		
		1 lot refrigerant & oil charge.		
		Dispatching (5°C ~ 10°C)		
1	set	1 unit of R-507 Condensing Unit (3HP, 3Ø, 220v,60HZ) Including Metallic Mounting Base.		
		1 unit of Unit Cooler/Evaporator (Ceiling Hanger Type)		
		1 lot of Valves & Control Device		
		1 lot complete mechanical installation including refrigeration piping, insulations, hangers & support, bracket, & platforms.		
		1 lot refrigerant & oil charge.		
		Ante-room (5°C ~ 10°C)		
2	set	1 unit of R-507 Condensing Unit (3HP, 3Ø, 220v,60HZ) Including Metallic Mounting Base.		
		1 unit of Unit Cooler/Evaporator (Ceiling Hanger Type)		
		1 lot of Valves & Control Device		
		1 lot complete mechanical installation including refrigeration piping, insulations, hangers & support, bracket, & platforms.		
		1 lot refrigerant & oil charge.		
		Washing (5°C ~ 10°C)		
2	set	1 unit of R-507 Condensing Unit (3HP, 3Ø, 220v,60HZ) Including Metallic Mounting Base.		
		1 unit of Unit Cooler/Evaporator (Ceiling Hanger Type)		
		1 lot of Valves & Control Device		
		1 lot complete mechanical installation including refrigeration piping, insulations, hangers & support, bracket, & platforms.		
		1 lot refrigerant & oil charge.		
		OFFICE 1		
1.00	set	Split Type Air Conditioning Unit, Wall Mounted Type, (2HP, 1Ø, 220v,60HZ) Inverter Type		
		OFFICE 2		
1.00	set	Split Type Air Conditioning Unit, Wall Mounted Type, (1HP, 1Ø, 220v,60HZ) Inverter Type		
		TOTAL MATERIAL COST :		
		LABOR COST :		
		Testing & Commissioning:		
1.00	load	Delivery:		
		SUB TOTAL :		
		I. DIRECT COST(DC):		

		Materials and Labor Total Cost (civil + Electrical + Refrigeration):		
		Permits and Misc.:		
		Project Billboard SPL-2:		
		COA Billboard SPL-3:		
		Soil Boring Test		
		Construction of field office (bodega) ITEM 605:		
		Direct Cost (DC):		
		II. INDIRECT COST(IC):		
		OCM (11%)		
		CONTRACTORS PROFIT (8%)		
		Indirect Cost (IC):		
		III. VALUE ADDED TAX (VAT) = 5%*(DC+IC):		
		TOTAL PROJECT COST (I+II+III+IV):		-