

PROGRAM OF WORKS
DETAILED COST ESTIMATE

PROJECT	: UPGRADING OF ELECTRICAL SYSTEM							
SCHOOL	: REGIONAL OFFICE							
LOCATION	: WANGAL, LA TRINIDAD, BENGUET							
OWNER	: DEPARTMENT OF EDUCATION							

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT COST		TOTAL COST		GRAND TOTAL
				MATERIAL	LABOR	MATERIAL	LABOR	
GENERAL REQUIREMENTS								
	Mobilization/Temporary Structures, Utilities and Services/Demobilization	lot	1.00					
	Project Billboard	lot	1.00					
	Safety and Health	lot	1.00					
	Other permit fees	lot	1.00					
	Clamp Meter/IR Thermometer/Voltage Detector kit for the engineers	lot	1.00					
	Hauling cost	lot	1.00					
	Sub-total							
Electrical Wires								
	3.5mm ² THHN Cu. Wire "RED"	mtrs.	7,750.00					
	3.5mm ² THHN Cu. Wire "BLUE"	mtrs.	7,750.00					
	50.0mm ² THHN Cu. Wire "RED"	mtrs.	410.00					
	50.0mm ² THHN Cu. Wire "BLUE"	mtrs.	410.00					
	80.0mm ² THHN Cu. Wire "BLUE"	mtrs.	120.00					
	80.0mm ² THHN Cu. Wire "RED"	mtrs.	120.00					
	Sub-total							
REWIRING/REPLACEMENT OF LIGHTING ACCESSORIES AND CIRCUIT (MAIN BUILDING)								
	4" Receptacle	pcs.	11.00					
	10 Watts LED Bulb	pcs.	11.00					
	12inches x 48inches LED CEILING PANEL LIGHTING, 30-50Watts,Day light white, 230V, Slim type, can be surface or recessed mounted.	set	90.00					
	Duplex Switch, Wide Series, With LED Indicator	set	15.00					
	Single Switch, Wide Series, With LED Indicator	set	20.00					
	Triplex Switch, Wide Series, With LED Indicator	set	5.00					
	Three Way Switch, Wide Series, With LED Indicator	set	3.00					
	Surface Type AMCO Box	pcs.	43.00					
	3/4" PVC Moulding	pcs.	100.00					
	1/2" PVC pipe	pcs.	120.00					
	Utility Box	pcs.	65.00					
	Metal Screw with plastic tox	pcs.	6.00					
	Construction adhesive	pcs.	120.00					
	Plastic cable tie	bag	2.00					
	Sub-total							
REWIRING/REPLACEMENT OF LIGHTING ACCESSORIES AND CIRCUIT (SNC BUILDING)								
	4" Receptacle	pcs.	29.00					
	10 Watts LED Bulb	pcs.	29.00					
	12inches x 48inches LED CEILING PANEL LIGHTING, 30-50Watts,Day light white, 230V, Slim type, can be surface or recessed mounted.	set	130.00					
	Duplex Switch, Wide Series, With LED Indicator	set	20.00					
	Single Switch, Wide Series, With LED Indicator	set	20.00					
	Triplex Switch, Wide Series, With LED Indicator	set	5.00					
	Three Way Switch, Wide Series, With LED Indicator	set	3.00					
	Surface Type AMCO Box	pcs.	48.00					
	3/4" PVC Moulding	pcs.	100.00					
	1/2" PVC pipe	pcs.	120.00					
	Utility Box	pcs.	65.00					
	Metal Screw with plastic tox	pcs.	6.00					
	Construction adhesive	pcs.	120.00					
	Plastic cable tie	bag	2.00					
	Sub-total							
REWIRING/REPLACEMENT OF LIGHTING ACCESSORIES AND CIRCUIT (COA, PAYROLL BUILDING)								
	4" Receptacle	pcs.	31.00					
	10 Watts LED Bulb	pcs.	31.00					
	12inches x 48inches LED CEILING PANEL LIGHTING, 30-50Watts,Day light white, 230V, Slim type, can be surface or recessed mounted.	set	40.00					
	Duplex Switch, Wide Series, With LED Indicator	set	13.00					
	Single Switch, Wide Series, With LED Indicator	set	11.00					
	Triplex Switch, Wide Series, With LED Indicator	set	1.00					
	Three Way Switch, Wide Series, With LED Indicator	set	2.00					
	2-Gang Convenience Outlet, Wide Series	set	42.00					

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT COST		TOTAL COST		GRAND TOTAL
				MATERIAL	LABOR	MATERIAL	LABOR	
	Surface Type AMCO Box	pcs.	69.00					
	3/4" PVC Moulding	pcs.	120.00					
	1/2" PVC pipe	pcs.	120.00					
	Utility Box	pcs.	65.00					
	Metal Screw with plastic tox	pcs.	6.00					
	Construction adhesive	pcs.	120.00					
	Plastic cable tie	bag	2.00					
	Sub-total							
	IMPROVEMENT OF COVERED COURT LIGHTING							
	200W HIGH BAY LED LIGHT	set	16.00					
	Prefabricated Anchoring for HIGH BAY LED LIGHT	Assembly	16.00					
	Scaffolding rentals	lot	1.00					
	Sub-total							
	PROVISION OF PERIMETER LIGHTINGS							
	Integrated Solar Streetlight Weatherproof 150Watts Light Output,250Watts solar panel output, with motion sensor and prefabricated mounting bracket	assembly	25					
	Prefabricated 4"x2"x25 ft Lamp Post, Hot dipped galvanized with base plate anchored in a concrete pedestal	assembly	19					
	Sub-total							
	PANEL BOARDS							
	10 Branches Panel Board with 400AT,TQD Centermain Circuit Breaker, 8 sets - 125AT 2P, TQD Circuit Breaker,NEMA 3R Enclosure	Assembly	1.00					
	6 Branches Panel Board with 40AT Centermain Circuit Breaker and 6 sets - 15 AT Circuit breaker,NEMA 3R Enclosure for covered court.	Assembly	1.00					
	24 Branches Panel Board with 60AT, 2P, TQD, Centermain Circuit Breaker, 24 sets - 15AT, 2P Circuit Breakers, NEMA 3R Enclosure	Assembly	2.00					
	2"RSC Pipe	pcs.	2.00					
	2"RSC Elbow	pcs.	1.00					
	2"RSC Coupling	pcs.	2.00					
	2"RSC Clamp with screw	pcs.	5.00					
	2"Service Entrance Cap	pcs.	1.00					
	Pull Box	pcs.	15.00					
	Cable Tray, 25cmx20cmx1 mtr, powder coated gray, with removal cover, complete with mounting accessories	mtrs.	50.00					
	80.0mm² Copper terminal lugs	pcs.	6.00					
	50.0mm² Copper terminal lugs	pcs.	4.00					
	Sub-total							
	ELECTRICAL POLE AND ACCESSORIES							
	35 Ft Electrical Steel Pole, complete with accessories	Asembly	6.00					
	Double Rack Spool Insulator	set	15.00					
	Sub-total							
	ELECTRICAL ROOM/GENERATOR HOUSING							
	MASONRY WORKS		sq.m	44.2				
	CHB 4" thk	pcs	553					
	Portland Cement	cu.m	23					
	Washed Sand	cu.m	2					
	10mm x 6m RSB	kg	59					
	G.I. Tie Wire	kg	2					
	PLASTERING		cu.m.	88.4				
	Portland Cement	bag	30					
	Washed Sand	cu.m	3					
	DOORS AND WINDOWS							
	Aluminum Roll Up Door (2.5mx2.7m)	set	1					
	W-1 Aluminum Louver Type (1m x 0.5m)	set	1					
	W-2 Awning Window with grilles (1m x 0.3m)	set	1					
	ELECTRICAL WORKS							
	2 x 18 Watts LED lamp with luminaire surface type	set	3					
	2 - Gang Convenience Outlet wide series	set	2					
	3.5mm2 THHN Copper Wire	mtrs	100					
	4 Branches Panel Board with 1 - 40AT, 2P Main Breaker 1 - 15AT, 2P CB, 1 - 20AT, 2P CB	assembly	1					
	1/2" PVC Pipe	pcs.	7					
	Octagonal Junction Box	pcs.	5					
	Utility Box	pcs.	3					
	1 - Gang Switch with LED indicator	pcs.	2					
	Miscellaneous	lot	1					
	PAINTING WORKS		sq.m.	104				
	Latex, Flat	gal	6.00					
	Masonry Putty	gal	2.00					
	Latex, Semi Gloss	gal	11.00					
	Acri Color	gal	5.00					
	OTHERS							
	Water Proofing (Cement) 5kgs/bag	bags	30					
	Demolition works	lot	1					
	Sub-total							

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT COST		TOTAL COST		GRAND TOTAL
				MATERIAL	LABOR	MATERIAL	LABOR	
GENERATOR AND AUTOMATIC TRANSFER SWITCH								
	75KVA 3 - Phase, silent type, weather proof diesel generator, 230V, 60Hz output, 0.8 Power Factor with manual and auto operation, with testing and commissioning	Assembly	1.00					
	400AT Automatic Transfer Switch, with led indicator for normal and emergency power, complete appropriate cable and accessories, with testing and commissioning	Assembly	1.00					
	Sub-total							
I.	DIRECT COST							
II.	INDIRECT COST 17% of (I)							
III.	TAX 5% of (I + II)							
IV.	TOTAL CONSTRUCTION COST (I + II + III)							

Prepared by:

Date:



**PROGRAM OF WORKS
 BILL OF QUANTITIES**

ELEC 2020 - CAR - 001

School : REGIONAL OFFICE	Date: November 15, 2019
School I.D	Budget Allocation:
Region : CAR	Engineering and Administrative Overhead:
Division	Approved Budget for the Contract:
Project Title :	Completion Period: 180 calendar days
: UPGRADING OF ELECTRICAL SYSTEM	Minimum Required Manpower:
	General Foreman Line Man(TESDA ACCREDITED)
	Helper Licensed Electrical Practitioner(RME & REE)
Location : WANGAL, LA TRINIDAD, BENGUET	Minimum Required Equipment:
	Jack Hammer Come Along Cable Puller Dump Truck/Cargo Truck
	Electrical Tools Various Power Tools Knockout Puncher
	Crimping Tools Heat Gun/Torch Safety Belt/Body Belt

ITEM NO.	Item Description	% of Total	Unit	Quantity	Total Cost	Remarks
	I. DIRECT COST					
	GENERAL REQUIREMENTS		lot	1.00		
	Electrical Wires		lot	1.00		
	REWIRING/REPLACEMENT OF LIGHTING ACCESSORIES AND CIRCUIT (MAIN BUILDING)		lot	1.00		
	REWIRING/REPLACEMENT OF LIGHTING ACCESSORIES AND CIRCUIT (SNC BUILDING)		lot	1.00		
	REWIRING/REPLACEMENT OF LIGHTING ACCESSORIES AND CIRCUIT (COA, PAYROLL BUILDING)		lot	1.00		
	IMPROVEMENT OF COVERED COURT LIGHTING		lot	1.00		
	PROVISION OF PERIMETER LIGHTINGS		lot	1.00		
	PANEL BOARDS		lot	1.00		
	ELECTRICAL POLE AND ACCESSORIES					
	ELECTRICAL ROOM/GENERATOR HOUSING		lot	1.00		
	GENERATOR AND AUTOMATIC TRANSFER SWITCH		lot	1.00		
	Sub-Total					
	II. INDIRECT COST 17% of (I)					
	Overhead Expenses (5%)					
	Contingencies (3%)					
	Miscellaneous (1%)					
	Contractor's Profit (8%)					
	Sub-Total					
	III. TAX 5% of (I+II)					
	Sub-Total					
	IV. TOTAL CONSTRUCTION COST (I + II + III)	100.00%				

Prepared by:

Date: