



Republic of the Philippines  
 DEPARTMENT OF EDUCATION  
 Cordillera Administrative Region  
 Division Of Baguio City  
 # 82 Military Cut- Off, Baguio City  
 Tel. No. : (074) 442 - 7819



**PROGRAM OF WORK  
 BILL OF QUANTITIES  
 ELEC 2020 - CAR - Baguio City - 05**

<b>School</b> : PINGET NATIONAL HIGHSCHOOL			<b>Date:</b>			
<b>School I.D</b> : 305286			<b>Budget Allocation:</b>			
<b>Region</b> : CAR			<b>Engineering and Administrative Overhead:</b>			
<b>Division</b> : BAGUIO CITY			<b>Approved Budget for the Contract:</b>			
<b>Project Title</b> :			<b>Completion Period:</b> 120 calendar days			
<b>: UPGRADING OF ELECTRICAL SYSTEM</b>			<b>Minimum Required Manpower:</b>			
			Electrical Engineer	Welder	Carpenter	
			Master Electrician	Construction Foreman		
<b>Location</b> : BAGUIO CITY			<b>Minimum Required Equipment:</b>			
			Hand Tools	Jackhammer	Dump Truck/Cargo Truck	
			Electrical Tools	Concrete Cutter	Knockout Puncher	
			Crimping Tools	Heat Gun/Torch	Various Power Tools	
			Megger Tester			

ITEM NO.	Item Description	% of Total	Unit	Quantity	Total Cost	Remarks
	<b>I. DIRECT COST</b>					
	GENERAL REQUIREMENTS		lot	1.00		
	<b>SERVICE LINE</b>					
	ELECTRICAL WORK		lot	1.00		
	CIVILWORKS		lot	1.00		
	MANHOLE		lot	1.00		
	STREETLIGHT		lot	1.00		
	METERING REQUIREMENT		lot	1.00		
	POWERHOUSE		lot	1.00		
	GENERATOR		lot	1.00		
	<b>Sub-total</b>					
	<b>II. INDIRECT COST</b> ___% of (I)					
	Overhead Expenses ( ___%)					
	Contingencies ( ___%)					
	Miscellaneous ( ___%)					
	Contractor's Profit ( ___%)					
	<b>Sub-Total</b>					
	<b>III. TAX 5% of (I+II)</b>					
	<b>Sub-Total</b>					
	<b>IV. TOTAL CONSTRUCTION COST (I + II + III)</b>					

Prepared by:



**PROGRAM OF WORK  
DETAILED COST ESTIMATE**

PROJECT : UPGRADING OF ELECTRICAL SYSTEM  
SCHOOL : PINGET NATIONAL HIGHSCHOOL  
LOCATION : BAGUIO CITY  
OWNER : DEPARTMENT OF EDUCATION

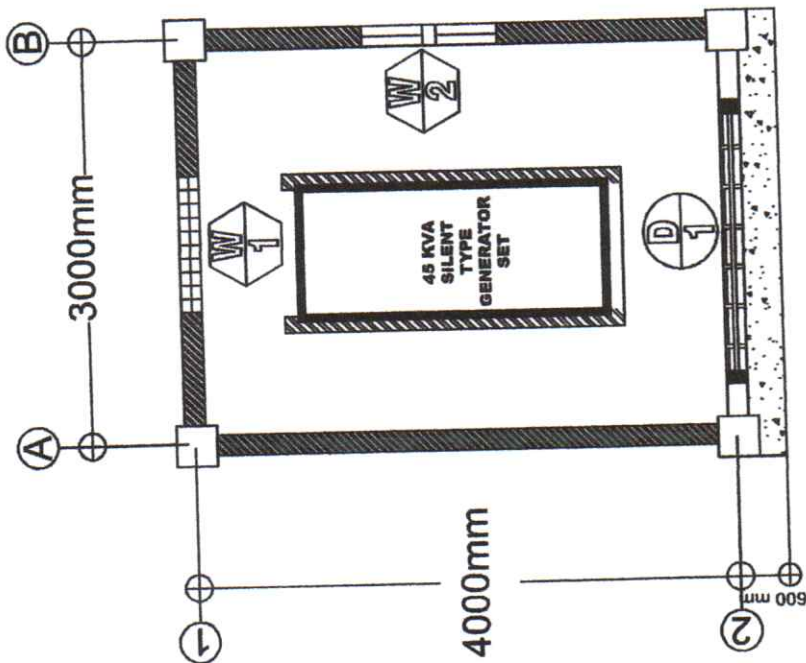
ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT COST		TOTAL COST		GRAND TOTAL
				MATERIAL	LABOR	MATERIAL	LABOR	
	GENERAL REQUIREMENTS							
	Mobilization/Temporary Structures, Utilities and Services/Demobilization	lot	1.00					
	Safety and Health	lot	1.00					
	Project Billboard	lot	1.00					
	Fire Safety Inspection Certificate (FSIC)	lot	1.00					
	Preparation of Electrical Plans and Master Electrical Layout to be Signed and Sealed by PEE.	lot	1.00					
	Insulation Testing	lot	1.00					
	Hauling cost	lot	1.00					
	Sub-total							
	SERVICE LINE							
	ELECTRICAL WORK							
	Steel Pullbox, 6"x 6"x 4", with complete accs.	sets	5.00					
	THHN # 6	m	50.00					
	THHN # 4	m	550.00					
	THHN # 2	m	100.00					
	THHN # 1/0	m	100.00					
	Steel Pole (35') with complete accessories	assy	2.00					
	Electrical Conduit uPVC, 50mmØ	pcs	200.00					
	Electrical Conduit uPVC, 25mmØ	pcs	20.00					
	Adhesive Marker(color coded & properly labeled)	set	10.00					
	4"wide Underground Warning Tape	m	525.00					
	RSC Pipe Conduit, 50mmØ	pc	5.00					
	RSC Pipe Coupling, 50mmØ	pc	5.00					
	Heavy Duty Main Distribution Panel Box Center Main, 6 Branches with Grounding and Neutral Busbar	pc	1.00					
	175A, 2P, Bolt On Industrial Type Circuit Breaker	pc	1.00					
	100A, 2P, Bolt On Industrial Type Circuit Breaker	pc	4.00					
	60A, 2P, Bolt On Industrial Type Circuit Breaker	pc	2.00					
	Manual Transfer Switch	lot	1.00					
	Solderless Connector	pc	10.00					
	Liquid Tight Conduit, 50mmØ	m	100.00					
	Terminal Lugs # 6	pc	2.00					
	Terminal Lugs # 4	pc	8.00					
	Terminal Lugs # 2	pc	2.00					
	Terminal Lugs #1/0	pc	2.00					
	Misc. (Clamps, PVC Elbow, PVC Cement, etc)	lot	1.00					
	Sub-total							
	CIVILWORKS							
	Removal of Concrete Structures/Obstructions	cu.m.	25.60					
	Excavation	cu.m.	102.40					
	Backfilling & Compaction	cu.m.	12.80					
	Portland Cement	bags	210.00					
	Crushed Gravel, 3/4	cu.m.	38.00					
	Crushed Sand	cu.m.	12.83					
	12mm Diam. RSB	kgs	1,546.77					
	#16 G.I. Tie Wire	kg	23.00					
	Equipments/Tools (10% of labor cost)	lot	1.00					
	Sub-total							
	MANHOLE							
	Removal of Concrete Structures/Obstructions	cu.m.	0.80					
	Excavation	cu.m.	4.40					
	Portland Cement	bags	40.00					
	Crushed Gravel, 3/4	cu.m.	8.00					
	Crushed Sand	cu.m.	4.00					
	12mm Diam. RSB	kgs	81.44					
	#16 G.I. Tie Wire	kg	4.00					
	Rough Lumber	bd.f.t	320.00					
	Plywood, Ordinary 1/4"x 4'x 8	pcs	16.00					
	ÇWN	kg	12.00					
	Sub-total							
	STREETLIGHT							



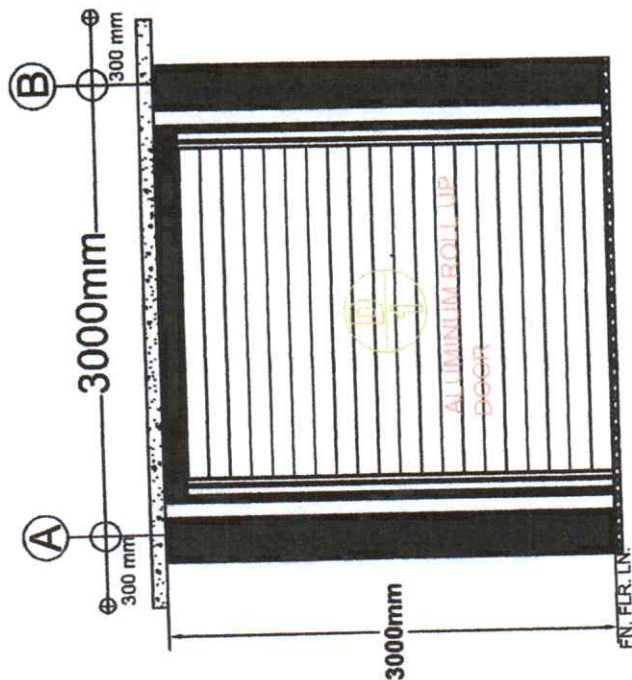
ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT COST		TOTAL COST		GRAND TOTAL
				MATERIAL	LABOR	MATERIAL	LABOR	
	Integrated Solar Streetlight Weatherproof 150Watts Light Output,250Watts solar panel output, with motion sensor and prefabricated mounting bracket	assy	6.00					
	Prefabricated 4"x2"x25 ft Lamp Post, Hot dipped galvanized with base plate anchored in a concrete pedestal	assy	4.00					
	Removal of Concrete Structures/Obstructions	cu.m.	0.80					
	Excavation	cu.m.	4.00					
	Portland Cement	bags	72.00					
	Crushed Gravel, 3/4	cu.m.	6.00					
	Crushed Sand	cu.m.	4.00					
	16mm Diam. RSB	kg	303.04					
	10mm Diam. RSB	kg	44.32					
	#16 G.I. Tie Wire	kg	4.00					
	Rough Lumber	bd.ft	160.00					
	Plywood, Ordinary 1/4"x 4'x 8'	pcs	8.00					
	CWN	kg	9.00					
	<b>Sub-total</b>							
	<b>METERING REQUIREMENT</b>							
	KWHM, 1P, 2W, CL200, 240V, Form1S	set	1.00					
	Meter seal, plastic	pc	2.00					
	Equipments/Tools (10% of labor cost)	lot	1.00					
	<b>Sub-total</b>							
	<b>POWERHOUSE</b>							
	<b>EARTHWORKS</b>							
	STRUCTURE EXCAVATION	cu.m	4					
	CONCRETING WORKS	cu.m.	12.872					
	Portland Cement	bag	116					
	Crushed Gravel 3/4"	cu.m	13					
	Washed Sand	cu.m	7					
	<b>REBAR WORKS</b>							
	Deformed Round Bars, Grade 40	kg	176.93					
	G.I. Tie Wire	kg	4					
	<b>FORM WORKS</b>							
	Coco Lumber	bd.ft	128					
	Plywood Ordinary, 1/2"x4'x8'	pc	5					
	CWN, Assorted	kg	4					
	<b>MASONRY WORKS</b>	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					
	<b>PLASTERING</b>	cu.m.	88.4					
	Portland Cement	bag	30					
	Washed Sand	cu.m	3					
	<b>DOORS AND WINDOWS</b>							
	Aluminum Roll Up Door (2.5mx2.7m)	set	1					
	W-1 Aluminum Louver Type (1.5m x 0.5m)	set	1					
	W-2 Awning Window with grilles (1m x 0.5m)	set	1					
	<b>ELECTRICAL WORKS</b>							
	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					
	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					
	<b>PAINTING WORKS</b>	sq.m.	104					
	Latex, Flat	gal	6.00					
	Masonry Putty	gal	2.00					
	Latex, Semi Gloss	gal	11.00					
	Acri Color	gal	5.00					
	<b>OTHERS</b>							
	Water Proofing (Cement) 5kgs/bag	bags	30					
	Rubberized Floor paint	gallons	4					
	<b>Sub-total</b>							
	<b>GENERATOR</b>							
	45 KVA Silent Type Generator Set with complete accs., (specs is for approval of agency engineer	set	1.00					
	<b>Sub-total</b>							
	<b>DIRECT COST</b>							
	<b>INDIRECT COST</b> ___ % of (I)							
	<b>TAX 5% of (I + II)</b>							
	<b>TOTAL CONSTRUCTION COST (I + II + III)</b>							

Prepared by:

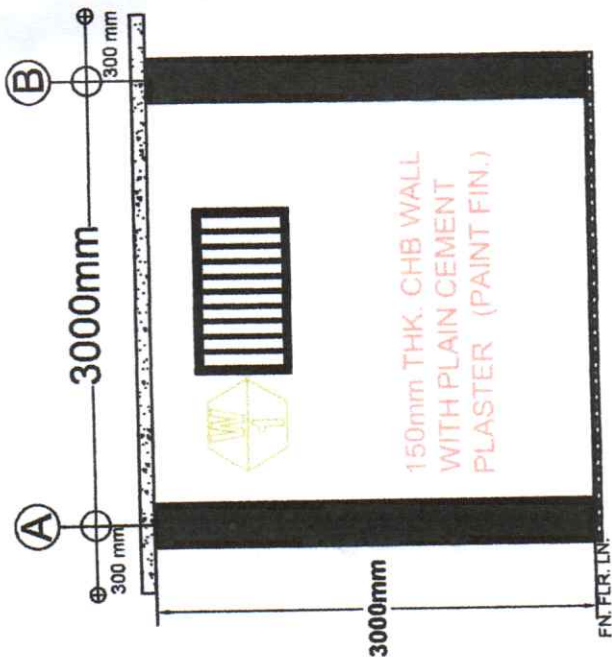
# ANNEX "B"



1 FLOOR PLAN  
DRAWN NOT TO SCALE  
A 1



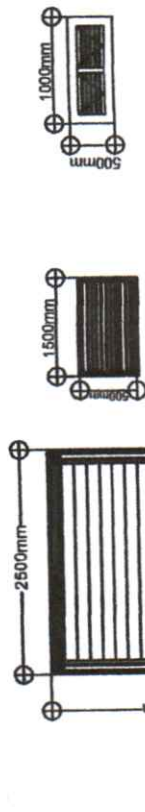
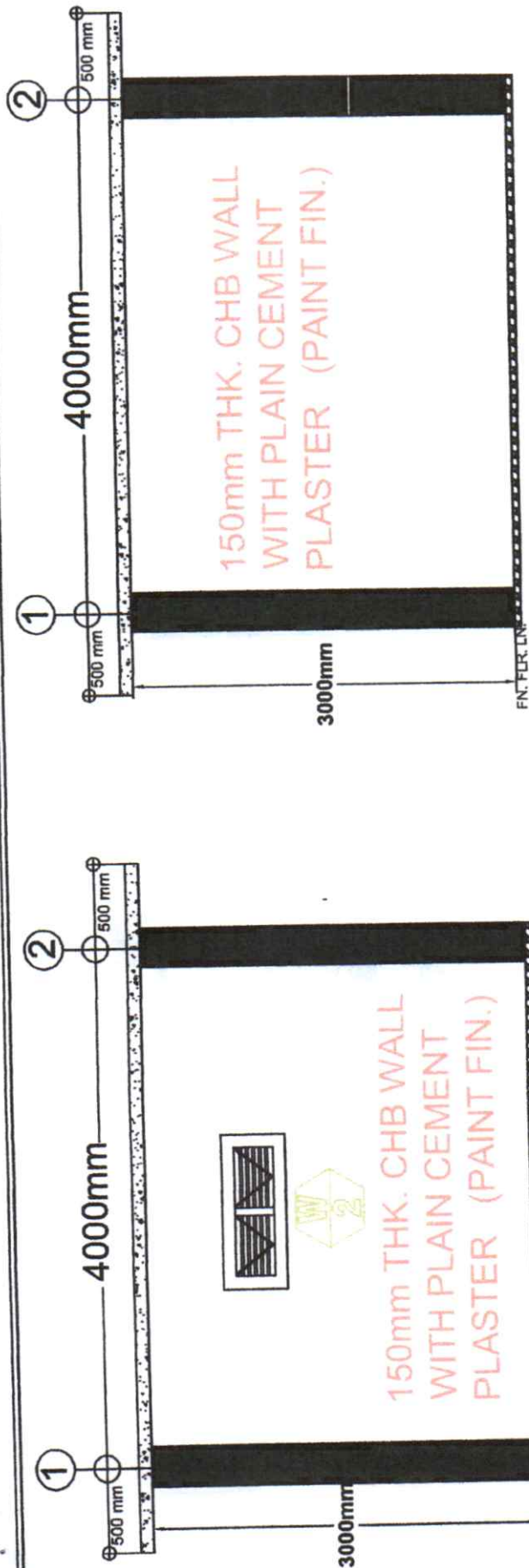
1 FRONT ELEVATION  
DRAWN NOT TO SCALE  
A 2



2 REAR ELEVATION  
DRAWN NOT TO SCALE  
A 2

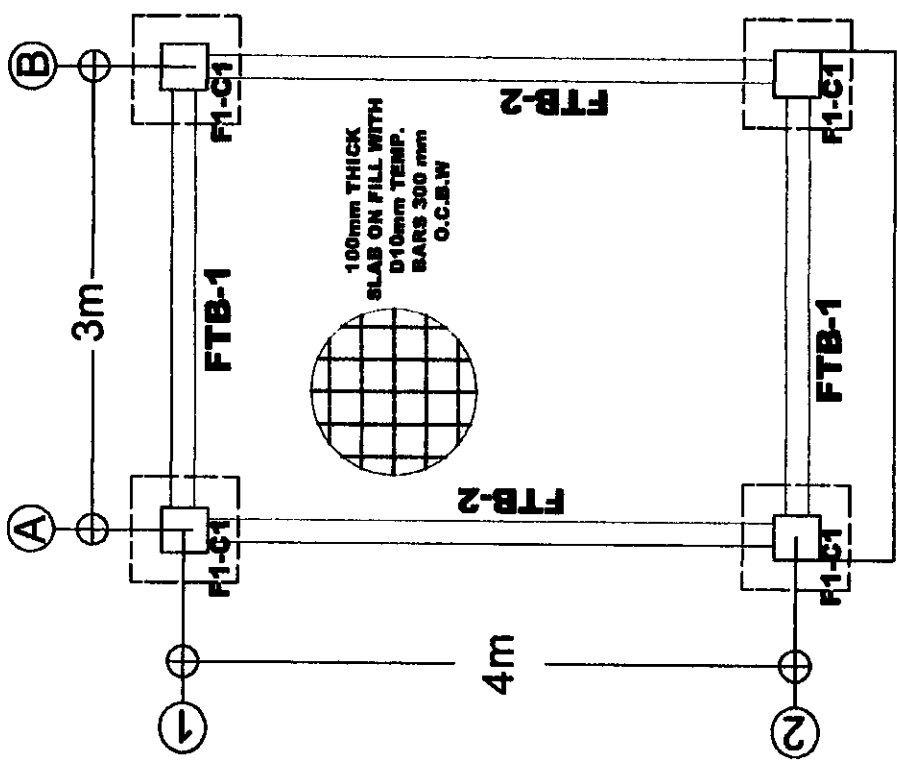
OWNER : DEPARTMENT OF EDUCATION- DIVISION OF BAGUIO		SHEET NO. : A1 2	
PROJECT TITLE : UPGRADING OF ELECTRICAL SYSTEM		SHEET CONTENT : FLOOR PLAN FRONT ELEVATION REAR ELEVATION	
APPROVED BY : MARIE CAROLYN B. VERANO, CESO V HEAD OF PROCURING ENTITY		RECOMMENDING APPROVAL : SORAYA T. FACULO OIC - CHIEF, S&SD	
PREPARED BY : JESTER SERRA B. CALIXTO SENIOR TECHNICAL ASSISTANT I		REPUBLIC OF THE PHILIPPINES <b>DepEd</b> DEPARTMENT OF EDUCATION EDUCATION FACILITIES DIVISION 402 MILITARY CMT. DFT. BAGUIO CITY	



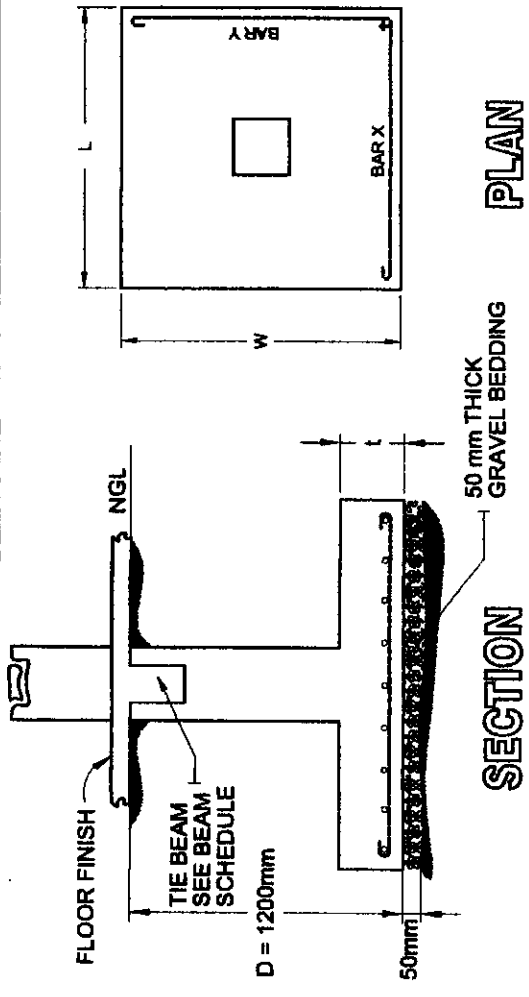


LABEL	D1	W1	W2
DESCRIPTION	ALUMINUM ROLL UP DOOR	ALUMINUM LOUVER TYPE WINDOW	AWNING WINDOW
NO. OF SET	1 SET	1 SET	1 SET

<b>REPUBLIC OF THE PHILIPPINES</b> <b>DepEd</b> DEPARTMENT OF EDUCATION EDUCATION FACILITIES DIVISION #13 MILITARY CUP, OTT, BAGUIO CITY		<b>UPGRADING OF ELECTRICAL SYSTEM</b>		OWNER: <b>DEPARTMENT OF EDUCATION - DIVISION OF BAGUIO</b> SHEET CONTENT: - LEFT SIDE ELEVATION - RIGHT SIDE ELEVATION - DOOR AND WINDOWS SCHEDULE		SHEET NO.: <b>A2</b> <b>2</b>
PREPARED BY: <b>JESTER SETH B. CALIXTO</b> SENIOR TECHNICAL ASSISTANT I		APPROVED BY: <b>MARIE CAROLYN B. VERANO, CESO V</b> HEAD OF PROCURING ENTITY		PROJECT TITLE: <b>UPGRADING OF ELECTRICAL SYSTEM</b>		DRAWN: <b>1 A 3</b>



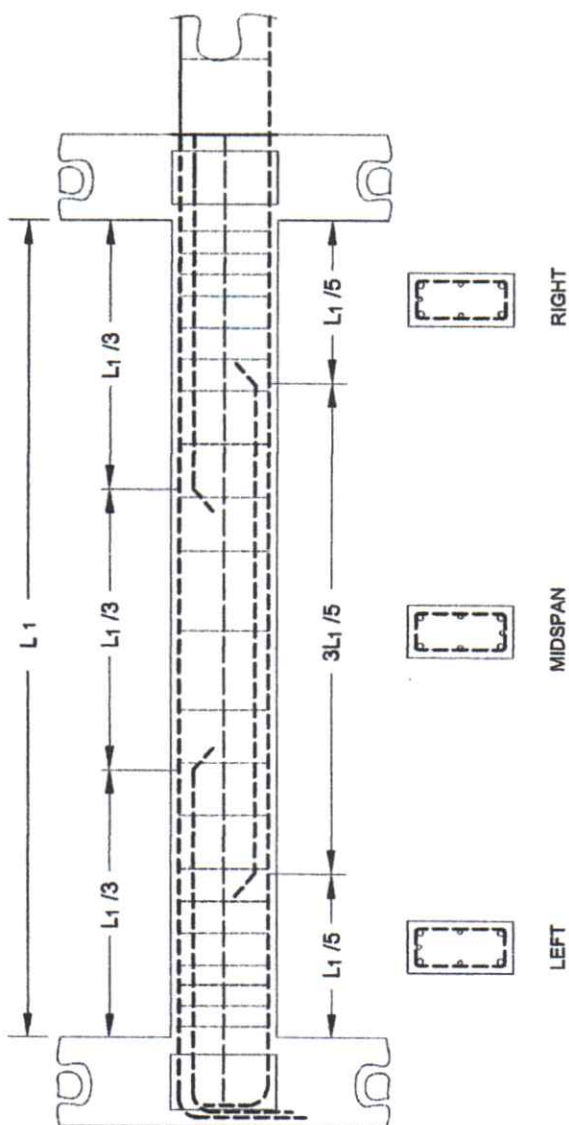
1 FOUNDATION PLAN  
DRAWN NOT TO SCALE



FOOTING SCHEDULE							
FOOTING MARK	FOOTING DIMENSIONS (mm)			REINFORCEMENT		REMARKS	
	LENGTH (L)	WIDTH (W)	thickness (t)	DEPTH (D)	BAR X		BAR Y
F-1	1000	1000	300	1200	8 - D18mm	8 - D18mm	SQUARE FOOTING

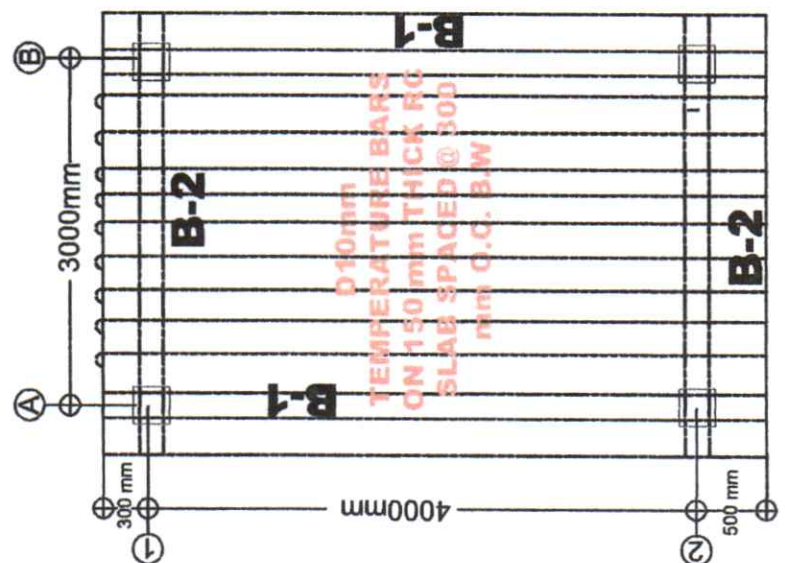
2 FOOTING DETAIL  
DRAWN NOT TO SCALE

REPUBLIC OF THE PHILIPPINES <b>DepEd</b> DEPARTMENT OF EDUCATION EDUCATION FACILITIES DIVISION 142 MILITARY CIRC. LGT. BAGO CITY	PREPARED BY:  <b>JESTER SETH B. CALIXTO</b> SENIOR TECHNICAL ASSISTANT I	RECOMMENDING APPROVAL:  <b>SORAYA T. PACULO</b> OIC - CHIEF, SUDO	APPROVED BY:  <b>MARIE CAROLYN B. VERANO, CES0 V</b> HEAD OF PROCUREMENT ENTITY	PROJECT TITLE: <b>UPGRADING OF ELECTRICAL SYSTEM</b>	OWNER: <b>DEPARTMENT OF EDUCATION - DIVISION OF BAGOIO</b> SHEET CONTENT: <b>FOUNDATION PLAN</b> <b>FOOTING DETAIL PLAN</b>	SHEET NO.: <b>S1</b> <b>3</b>
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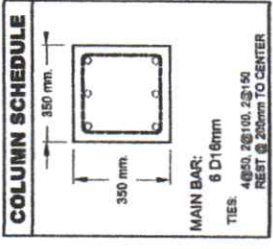


# BEAM SCHEDULE

BEAM MARK	BEAM DIMENSIONS		STEEL REINFORCEMENT								STIRRUPS D10 mm  (UNLESS NOTED OTHERWISE)
			REBAR DIAMETER (mm)	LEFT		MIDSPAN		RIGHT			
	WIDTH (b,mm)	DEPTH (h,mm)		TOP	BOTT.	TOP	BOTT.	TOP	BOTT.		
B1	300	350	12	3	2	2	3	3	2	3@50, 4@100, 4@150 REST @200 TO CENTER	
B2	300	350	12	3	2	2	3	3	2		
TB	200	350	12	3	3	2	2	3	3		



# 2 SLAB DETAIL NOT TO SCALE

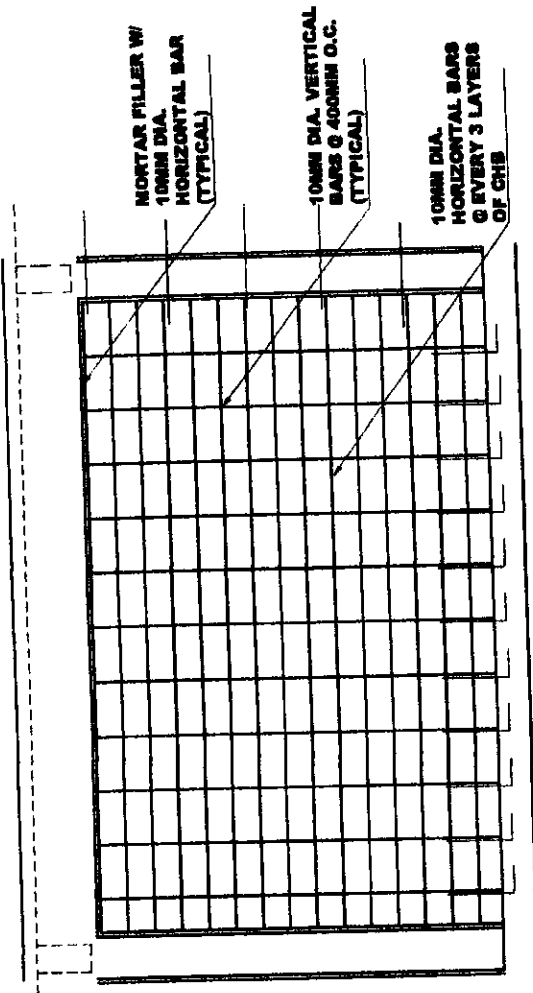


# 1 BEAM SCHEDULE NOT TO SCALE



<p>REPUBLIC OF THE PHILIPPINES</p> <p><b>DepEd</b></p> <p>DEPARTMENT OF EDUCATION</p> <p>EDUCATION FACILITIES DIVISION</p> <p># 92 MILITARY LIT. OFF. BAGUIO CITY</p>	<p>PREPARED BY:</p> <p><b>JESTER SETH B. CALIXTO</b></p> <p>SENIOR TECHNICAL ASSISTANT I</p>	<p>RECOMMENDING APPROVAL:</p> <p><b>SORAZA T. PACULO</b></p> <p>UIC - CHIEF, SCOD</p>	<p>APPROVED BY:</p> <p><b>MARIE CAROLYN B. VERANO, CESO V</b></p> <p>HEAD OF PROCURING ENTITY</p>	<p>PROJECT TITLE:</p> <p><b>UPGRADING OF ELECTRICAL SYSTEM</b></p>	<p>OWNER:</p> <p><b>DEPARTMENT OF EDUCATION - DIVISION OF BAGUIO</b></p> <p>SHEET NO.:</p> <p><b>S2</b></p> <p><b>3</b></p> <p>SHEET CONTENT:</p> <ul style="list-style-type: none"> <li>BEAM SCHEDULE</li> <li>SLAB SCHEDULE</li> <li>SLAB DETAIL</li> <li>COLUMN DETAIL</li> </ul>
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# TOP OF SLAB



1 TYPICAL MASONRY ELEVATION  
NOT TO SCALE

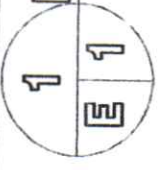
1  
S 3  
DRAWN

SHEET NO.: <b>S3</b>		OWNER: <b>DEPARTMENT OF EDUCATION - DIVISION OF BAGUIO</b>	
PROJECT TITLE: <b>UPGRADING OF ELECTRICAL SYSTEM</b>		SHEET CONTENT: <b>TYPICAL MASONRY ELEVATION</b>	
PREPARED BY: <b>JESTER BETH B. CALIXTO</b> SENIOR TECHNICAL ASSISTANT I		APPROVED BY: <b>MARIE CAROLYN B. VERANO, CESO V</b> HEAD OF PROCURING ENTITY	
RECOMMENDING APPROVAL: <b>SORAYA T. JACULO</b> OIC - CHIEF, SQUD		SHEET NO.: <b>S3</b>	
REPUBLIC OF THE PHILIPPINES <b>DepEd</b> DEPARTMENT OF EDUCATION EDUCATION FACILITIES DIVISION 40 MILITARY LITE. BFT, BAGUIO CITY			

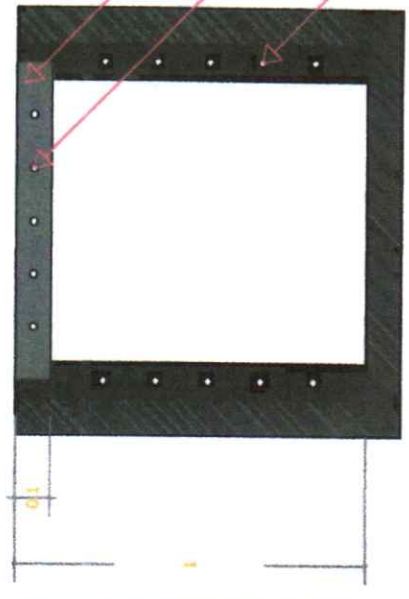


# MANHOLE DETAILS

DRAWN NOT TO SCALE



1

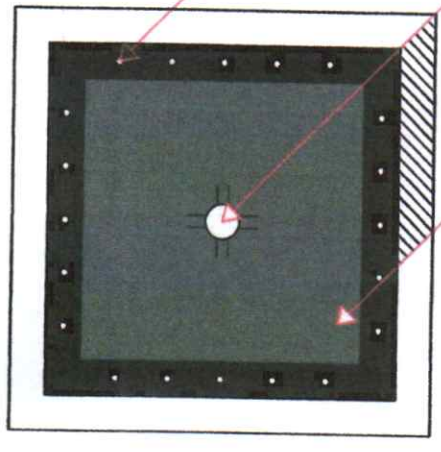


MANHOLE COVER

D 12 mm space @ 150 mm  
O.C both ways

D 12 mm space @ 150 mm  
O.C both ways

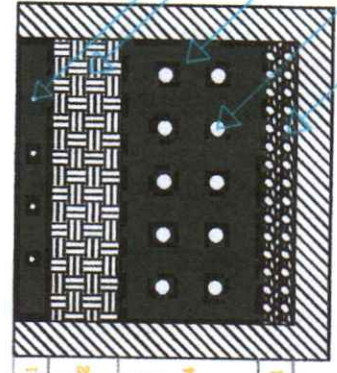
D 12 mm space @ 150 mm  
O.C Both ways



MANHOLE COVER

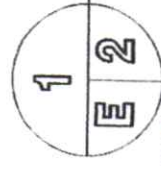
D 12 mm space @ 150 mm  
O.C Both ways

0.1  
0.2  
0.4  
0.8



# TRENCH DETAILS

DRAWN NOT TO SCALE



D 12 mm space @ 150 mm O.C Both ways

0.2m Backfill

Pipe Reinforce Concrete

Electrical Conduit space @ 100 mm O.C

0.1m GRAVEL BEDDING

REPUBLIC OF THE PHILIPPINES <b>DepEd</b> DEPARTMENT OF EDUCATION EDUCATION FACILITIES DIVISION # 12 MILITARY LIT. OFF. BAGUIO CITY	PREPARED BY:  <b>JESTER SETH B. CALIXTO</b> SENIOR TECHNICAL ASSISTANT I	RECOMMENDING APPROVAL:  <b>SORAYA T. FACULO</b> OIC - CHIEF, SAUD	APPROVED BY:  <b>MARIE CAROLYN B. VERANO, CESO V</b> HEAD OF PROCURING ENTITY	PROJECT TITLE: <b>UPGRADING OF ELECTRICAL SYSTEM</b>	OWNER: <b>DEPARTMENT OF EDUCATION - DIVISION OF BAGUIO</b>	SHEET NO.: <b>E1</b> <b>1</b>
	SHEET CONTENT: <b>MANHOLE DETAILS</b> <b>TRENCH DETAILS</b>					