

LEGENDS

SL.NO.	DESCRIPTION	SYMBOLS	RATINGS
1	LED TUBELIGHT 1X18W		20W (FOR CALCULATION)
2	6 AMPS SWITCH ONE WAY		
3	WALL BRACKET FIXTURE		20W
4	MIRRIR LIGHT		15W
5	16 AMPS 5/6 PIN SOCKET OUT LET (2000W)		
6	MAIN CONTROL PANEL BOARD AT 1.8 M HT.		
7	SUB DISTRIBUTION BOARD AT 1.8M HT.		
8	RECESSED LED CEILING FITTING 1X12W		15W (FOR CALCULATION)
9	CONDUIT POINT		
10	TELEPHONE POINT / TELEVISION POINT/COMPUTER SOCKET		
11	TV & TELEPHONE JUNCTION BOX		
12	EXHAUST FAN / CEILING FAN		80W / 60W
13	DOME TYPE CCTV		

SPECIFICATION FOR TELEPHONE NETWORK

- 1 TELEPHONE CABLE DUCT WITH 25MM DIA. M.S. CONDUIT 16 SWG.
- 2 TELEPHONE CABLE DUCT MUST BE SEPERATED BY .5M AWAY FROM ELECTRICAL ROUTE.
- 3 .TELEPHONE TERMINAL CABINET(TTC) AT 1.5M ABOVE FLOOR LEVEL AND SHOULD BE WATER TIGHT MOISTURE PROOF OF 250MMX200MMX150MM WITH COVER HEAVY 25MM DIA PUNCHES HOLE TO ALL SIDES
- 4. TELEPHONE SOCKET OUTLET GR 11 AT 0 .8M ABOVE FINISHED FLOOR LEVEL.
- 5.BRIDGE METHOD SHOULD BE FOLLOWED ITERM OF CROSSING.

SPECIFICATION FOR ELECTRICAL WORKS.

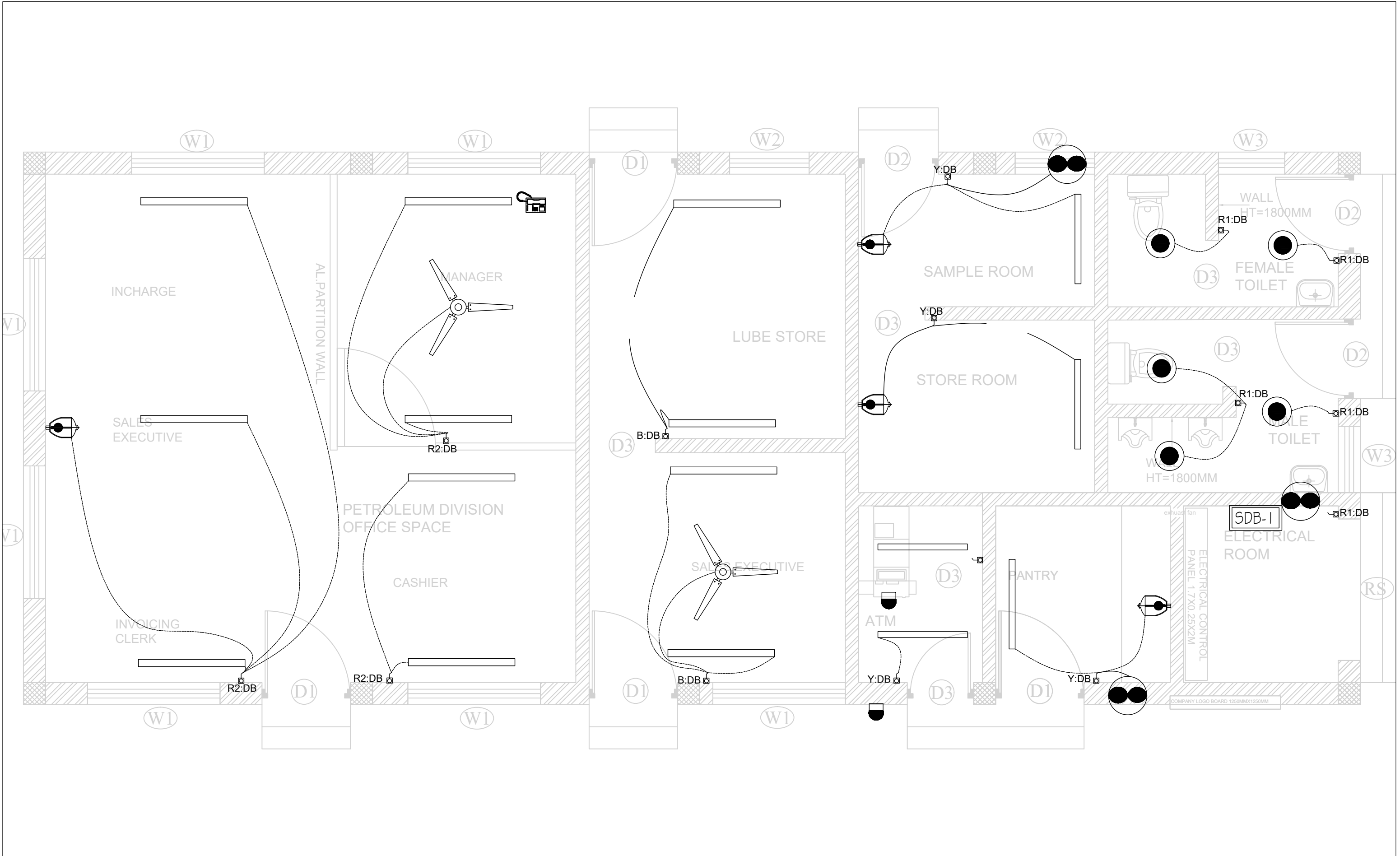
- 1. ALL LIGHT POINT WIRING WITH 1.5SQMM PVC INSULATED COPPER CONDUCTOR 1.1 KVG. IN RECESSED M.S CONDUIT.
- 2.ALL LIGHT CIRCUIT WIRING WITH 2.5SQMM PVC INSULATED COPPER CONDUCTOR 1.1 KVG.IN RECESSED M.S CONDUIT.
- 3. ALL POWER POINT WIRING WITH 4 SQMM PVC INSULATED COPPER CONDUCTOR 1.1 KVG IN RECESSED M.S CONDUIT.
- 4. ALL WALL FIXTURE AT 2.1 M FROM FINISHED FLOOR LEVEL.
- 5. BOTTOM OF THE LIGHT SWITCH BOARD IS 1.2 M FROM FLOOR LEVEL.
- 6. ALL POWER POINT AT .3M FROM FLOOR LEVEL& IN KITCHEN &TOILET AT 1.2 M
- 7. ALL THE CONDUIT ACCESSORIES ARE THREADED TYPE ONLY.
- 8. LAY OUT INDICATES 25MM DIA. 16 SWG M.S.
- 9. NO PHASE DIFFERENCE IS ALLOWED IN THE SAME CONDUIT.
- 10. NO CONDUITSHOULD BE USED LESS THAN 19MMDIA,18SWG..
- 11. SWITCH BOARDS AT DOOR FRAME/EDGE OF WALL SHOULD BE 23CM AWAY.

TEST RESULT ON COMPLETION OF THE INSTALLATION ,

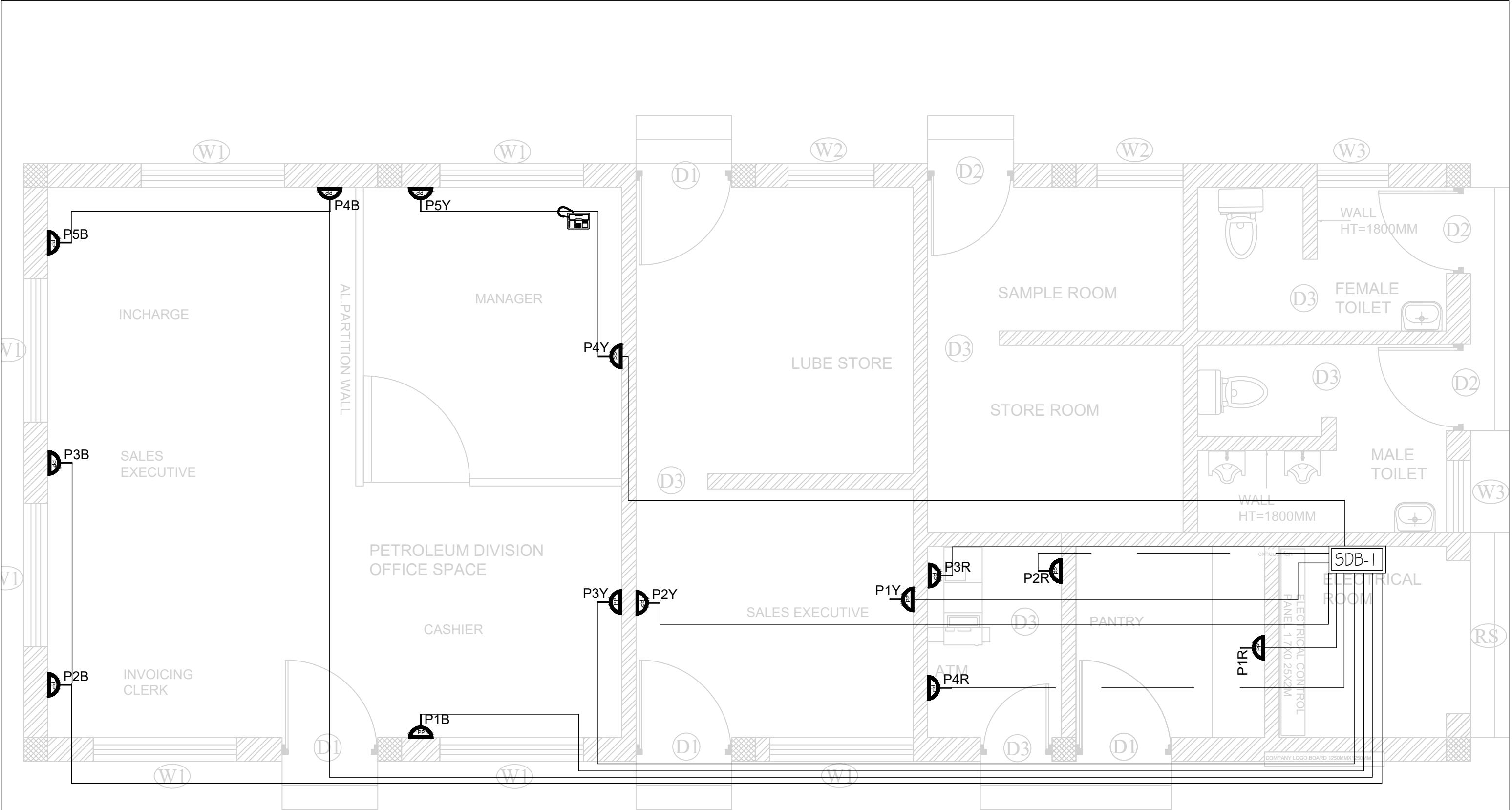
IT SHOULD SATISFY THE FOLLOWING TEST RESULTS:-

- 1 PLARITY TEST :-ALL SWITCHES MUST BE ON LIVE CONDUCTOR.
- 2 INSULATION TEST:-MINIMUM TEST RESULTS SHOULD NOT BE LESS THAN ONE MEGHA OHM.
- 3 EARTH CONTINUITY TEST :-LOW VOLTAGE TEST LAMP TEST SHOULD SATISFY THE INSTALLATION.
- 4 EARTHING TEST :-TEST RESULTS SHOULD BE WITHIN FIVE OHMS.

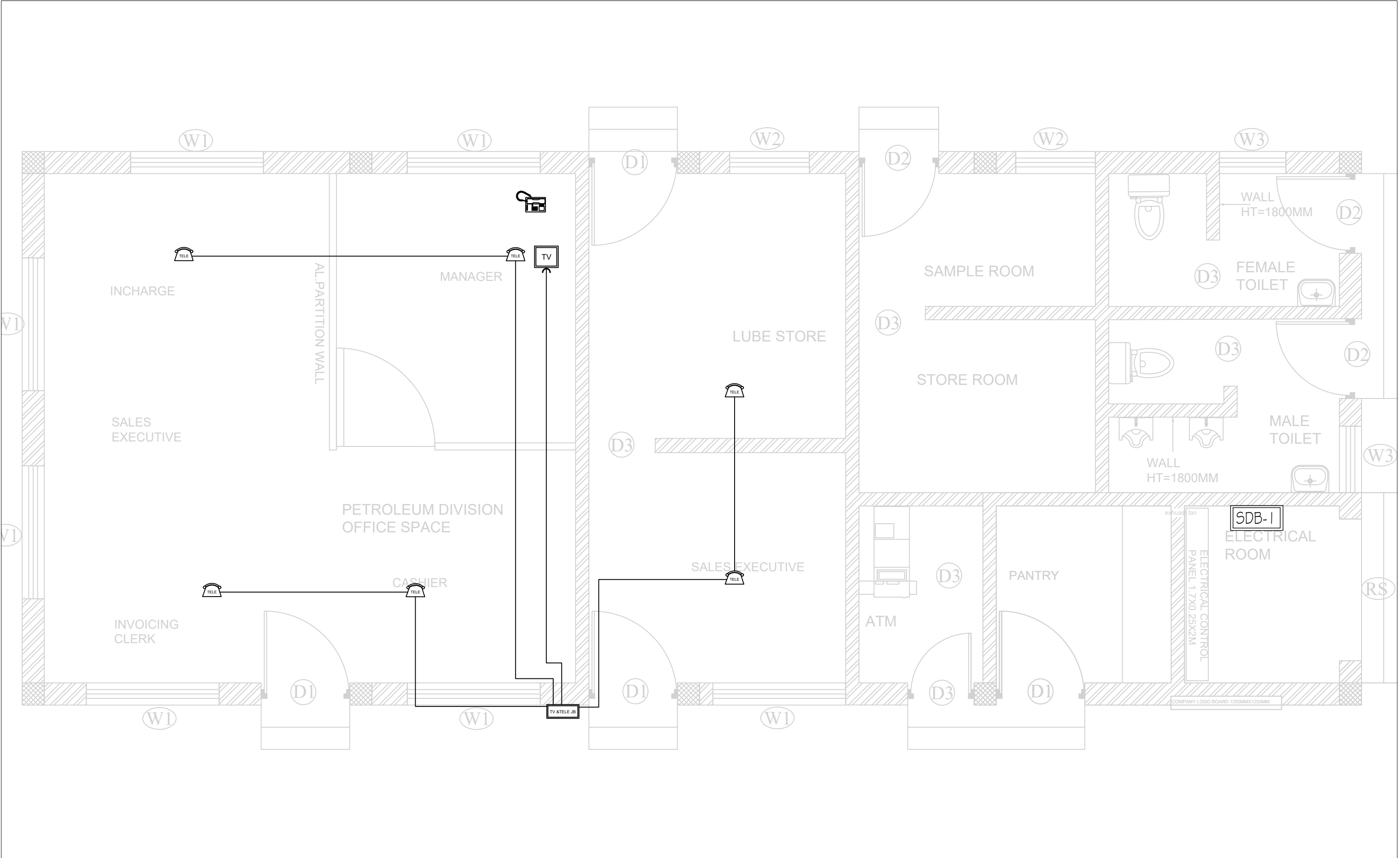
PROJECT TITLE : FUEL RETAIL OUTLET		LOCATION : CHAMKUNA LAP, TOORSA	DATE: MARCH 2020	SHEET NO ELE-01	NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER		www.greendesign.com.bt gdsbhuman@gmail.com +975 17848708 FLAT NO 8,GONGDZIN LAM ABOVE 8/11 CONVENIENT STORE NEXT TO THIMPHU THROMDE BUILDING THIMPHU,BHUTAN
DRAWING TITLE : ELECTRICAL LEGENDS AND SPECIFICATIONS	SCALE : 1:40	CLIENT: STCBL		DESIGN & DRAWN BY RITESH PRADHAN CDB NO-[240]	ELECTRICAL ENGINEER GREEN DESIGN STUDIO		



PROJECT TITLE : FUEL RETAIL OUTLET		LOCATION : CHAMKUNA LAP, TOORSA	DATE: MARCH 2020	SHEET NO ELE-02	NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER	
DRAWING TITLE : LIGHT POINT WIRING LAYOUT PLAN	SCALE : 1:40	CLIENT: STCBL		DESIGN & DRAWN BY RITESH PRADHAN CDB NO-[240]		
				ELECTRICAL ENGINEER GREEN DESIGN STUDIO		www.greendesign.com.bt gdsbhutan@gmail.com +975 17848708 FLAT NO 8,GONGDZIN LAM ABOVE 8/11 CONVENIENT STORE NEXT TO THIMPHU THROMDE BUILDING THIMPHU,BHUTAN

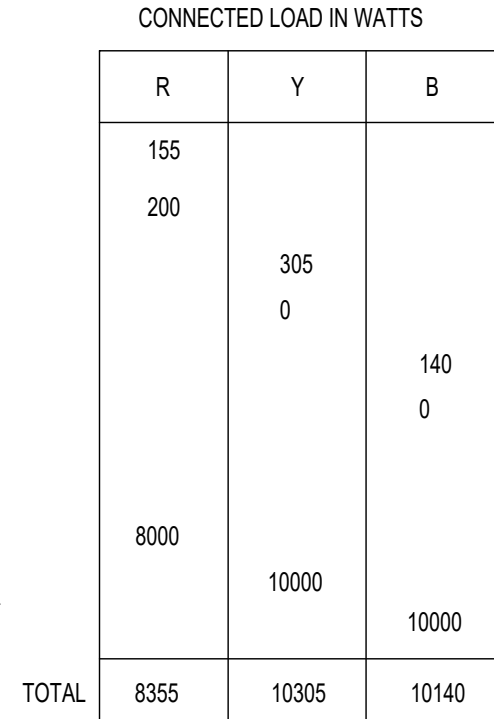


PROJECT TITLE : FUEL RETAIL OUTLET		LOCATION : CHAMKUNA LAP, TOORSA	DATE: MARCH 2020	SHEET NO ELE-04	NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER		www.greendesign.com.bt gdsbhutan@gmail.com +975 17848708 FLAT NO 8, GONGDZIN LAM ABOVE 8/11 CONVENIENT STORE NEXT TO THIMPHU THROMDE BUILDING THIMPHU, BHUTAN	
		DESIGN & DRAWN BY						
DRAWING TITLE : POWER POINT CONDUIT LAYOUT PLAN	SCALE : 1:40	CLIENT: STCBL	RITESH PRADHAN CDB NO-[240]			ELECTRICAL ENGINEER GREEN DESIGN STUDIO		



PROJECT TITLE : FUEL RETAIL OUTLET		LOCATION : CHAMKUNA LAP, TOORSA	DATE: MARCH 2020	SHEET NO ELE-05	NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER		www.greendesign.com.bt gdsbhutan@gmail.com +975 17848708
DRAWING TITLE : TV & TELEPHONE POINT CONDUIT LAYOUT PLAN WITH RJ45 PORT FOR LAN NETWORK	SCALE : 1:40	CLIENT: STCBL	DESIGN & DRAWN BY			C:\Pictures\green-design\logo\prgs	FLAT NO 8,GONGDZIN LAM ABOVE 8/11 CONVENIENT STORE NEXT TO THIMPHU THROMDE BUILDING THIMPHU,BHUTAN
			RITESH PRADHAN CDB NO-[240]	ELECTRICAL ENGINEER GREEN DESIGN STUDIO			

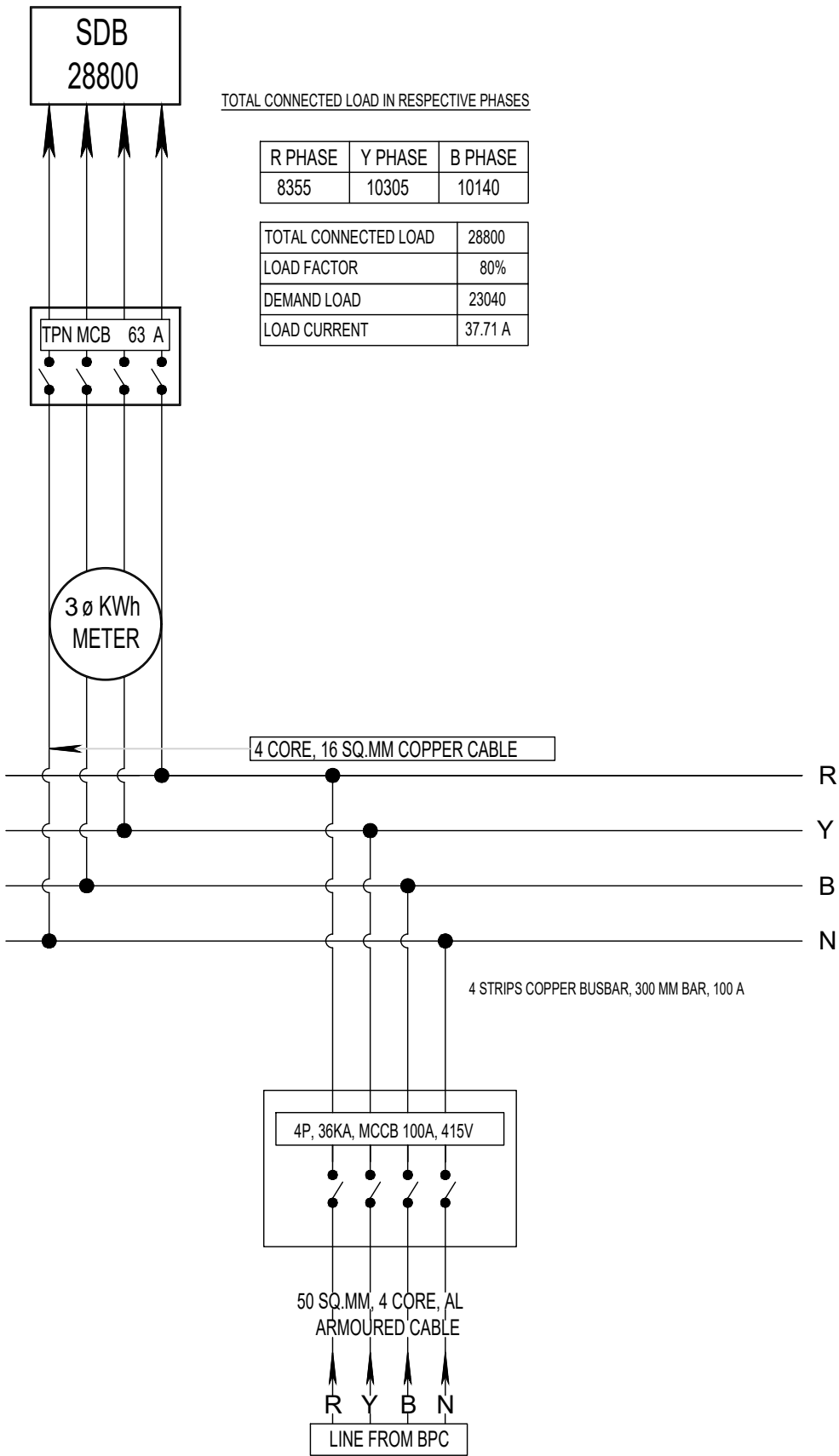
SPMCB- 16A- 14 NOS.



TOTAL CONNECTED LOAD	28800 W
DEMAND LOAD	23040 W
LOAD FACTOR	80 %
LOAD CURRENT	37.71 A

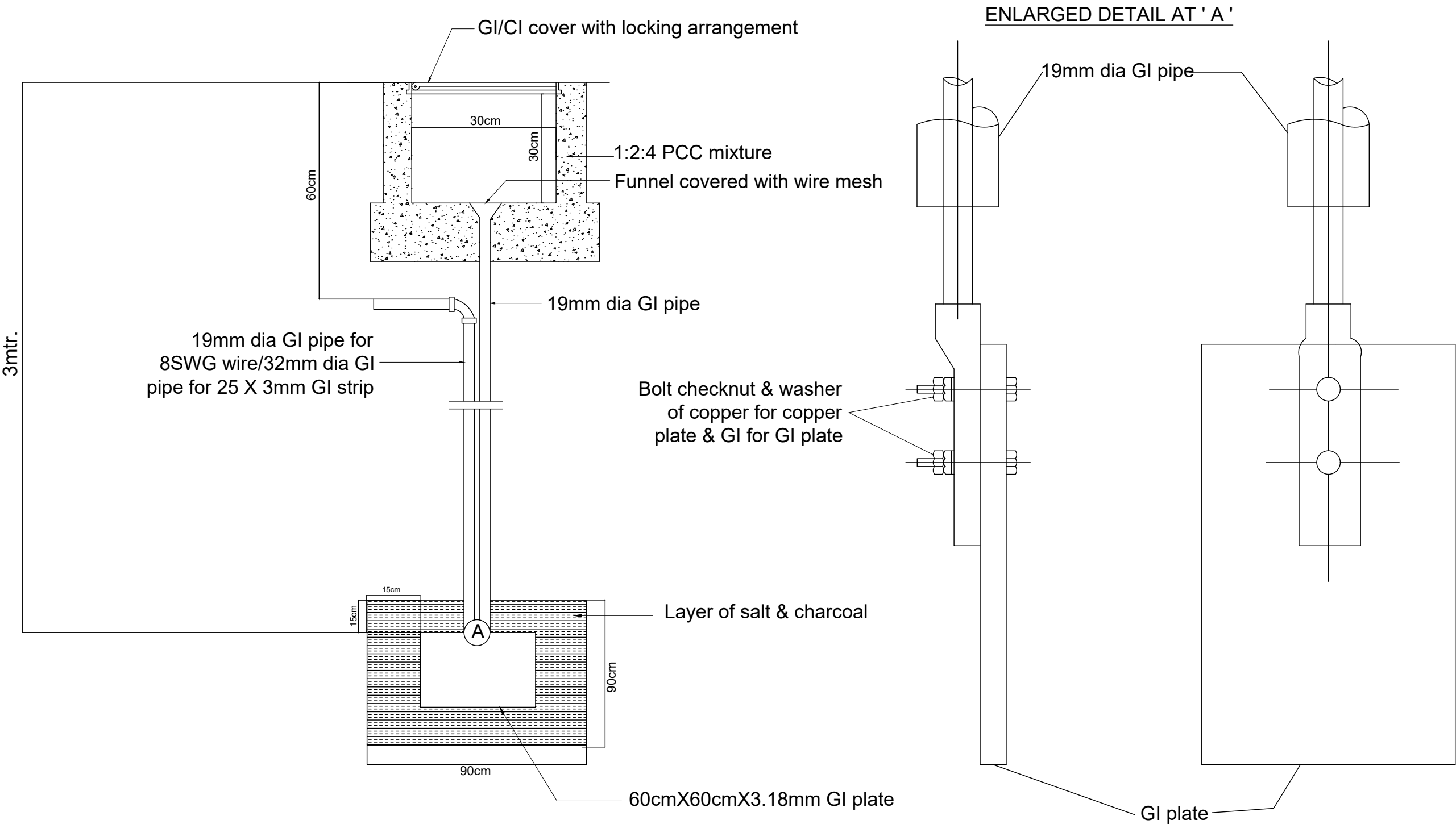
PROJECT TITLE : FUEL RETAIL OUTLET		LOCATION : CHAMKUNA LAP, TOORSA	DATE: MARCH 2020	SHEET NO ELE-06	NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER		www.greendesign.com.bt gdsbhuman@gmail.com +975 17848708
							FLAT NO 8, GONGDZIN LAM ABOVE 8/11 CONVENIENT STORE NEXT TO THIMPHU THROMDE BUILDING THIMPHU, BHUTAN
DRAWING TITLE : SUB DISTRIBUTION BOARD DETAILS	SCALE : 1:40	CLIENT: STCBL	DESIGN & DRAWN BY				
			RITESH PRADHAN CDB NO-[240]	ELECTRICAL ENGINEER GREEN DESIGN STUDIO			

RESIDENTIAL MAIN CONTROL PANEL BOARD DETAILS



PROJECT TITLE : FUEL RETAIL OUTLET		LOCATION : CHAMKUNA LAP, TOORSA	DATE: MARCH 2020	SHEET NO ELE-07	NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER		www.greendesign.com.bt gdsbhutan@gmail.com +975 17848708
DRAWING TITLE : MAIN DISTRIBUTION BOARD DETAILS	SCALE : 1:40	CLIENT: STCBL		DESIGN & DRAWN BY		C:\Pictures\greendesign\logos\prgs	FLAT NO 8,GONGDZIN LAM ABOVE 8/11 CONVENIENT STORE NEXT TO THIMPHU THROMDE BUILDING THIMPHU,BHUTAN
				RITESH PRADHAN CDB NO-[240]	ELECTRICAL ENGINEER GREEN DESIGN STUDIO		

TYPICAL PLATE EARTHING



PROJECT TITLE : FUEL RETAIL OUTLET		LOCATION : CHAMKUNA LAP, TOORSA	DATE: MARCH 2020	SHEET NO ELE-08	NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER	
DRAWING TITLE : TYPICAL PLATE EARTHING DETAILS	SCALE : 1:40	CLIENT: STCBL		DESIGN & DRAWN BY		
				RITESH PRADHAN CDB NO-[240]		www.greendesign.com.bt gdsbhuman@gmail.com +975 17848708 FLAT NO 8,GONGDZIN LAM ABOVE 8/11 CONVENIENT STORE NEXT TO THIMPHU THROMDE BUILDING THIMPHU,BHUTAN

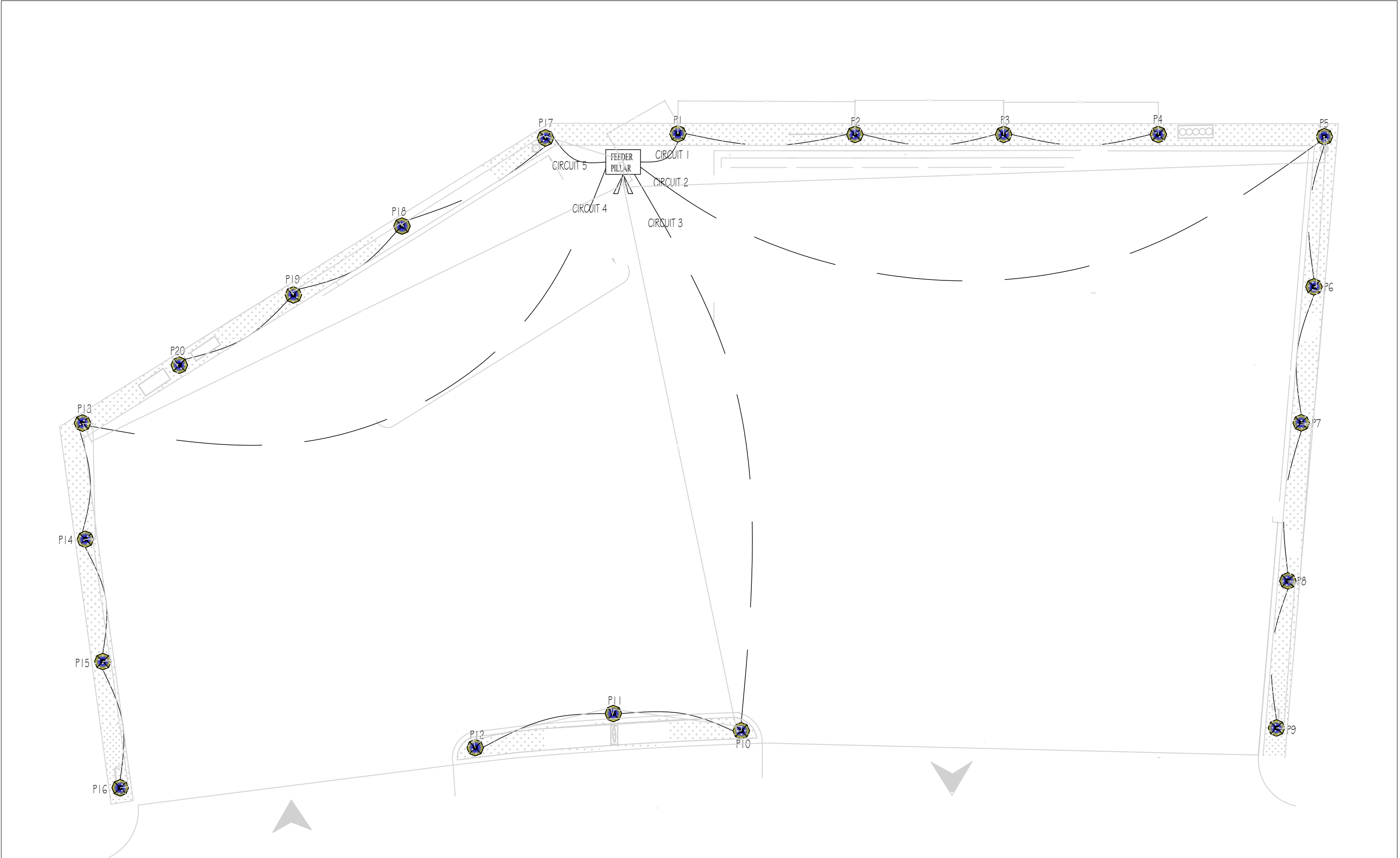
THE LEGENDS

SL. NO.	DESCRIPTION	SYMBOL	RATING
1.	POLE MOUNTED LED LIGHT 150W, 230 V		150 W
2.	7X24 Hrs. TIMER SWITCH, 230V AC, 40/63A		
3.	COMPOUND BOLLARD LIGHTING (FOR CANOPY) 80 W, 230 V		80 W
4.	POLE	P	
5.	POLE / CIRCUIT	P / C	

NOTE:

1.
- USE 110 MM HDPE PIPE ON FOOT PATH/ROAD CROSSINGS
2.
- USE C-TYPE MCBs FOR LEDs

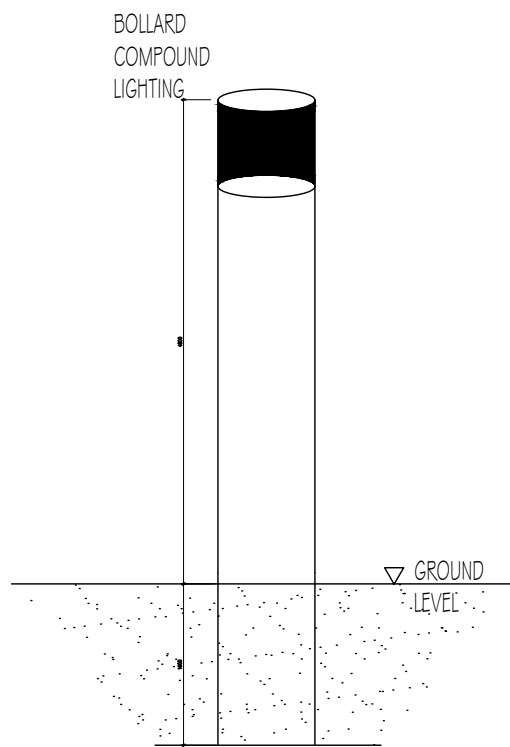
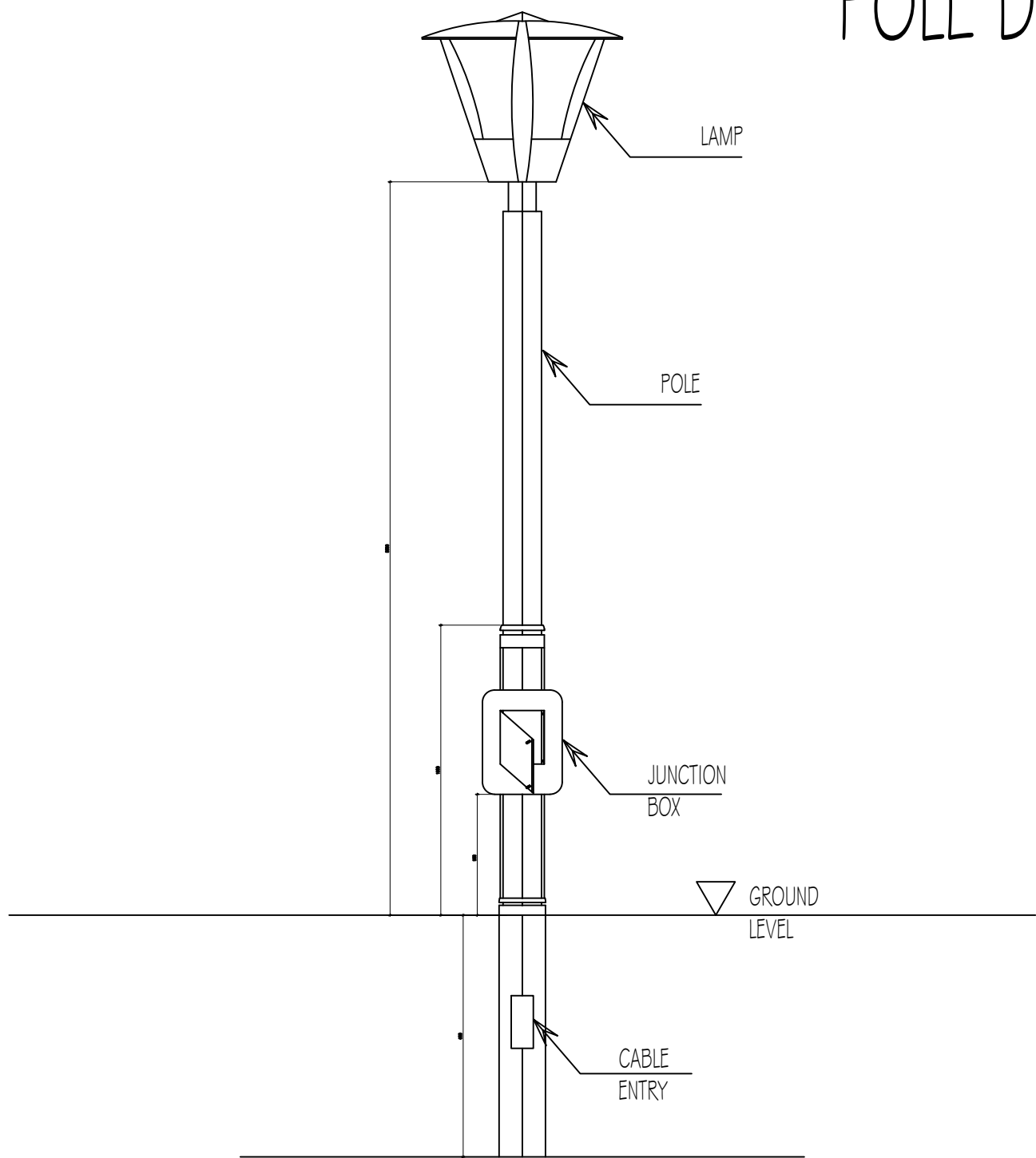
PROJECT TITLE : FUEL RETAIL OUTLET		LOCATION : CHAMKUNA LAP, TOORSA	DATE: MARCH 2020	SHEET NO ELE-09	NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER		www.greendesign.com.bt gdsbhutan@gmail.com +975 17848708
DRAWING TITLE : COMPOUND LIGHTING LEGENDS	SCALE : 1:40	CLIENT: STCBL		DESIGN & DRAWN BY		C:\Picture\greendesign\logos\prgs	FLAT NO 8,GONGDZIN LAM ABOVE 8/11 CONVENIENT STORE NEXT TO THIMPHU THROMDE BUILDING THIMPHU,BHUTAN
				RITESH PRADHAN CDB NO-[240]	ELECTRICAL ENGINEER GREEN DESIGN STUDIO		



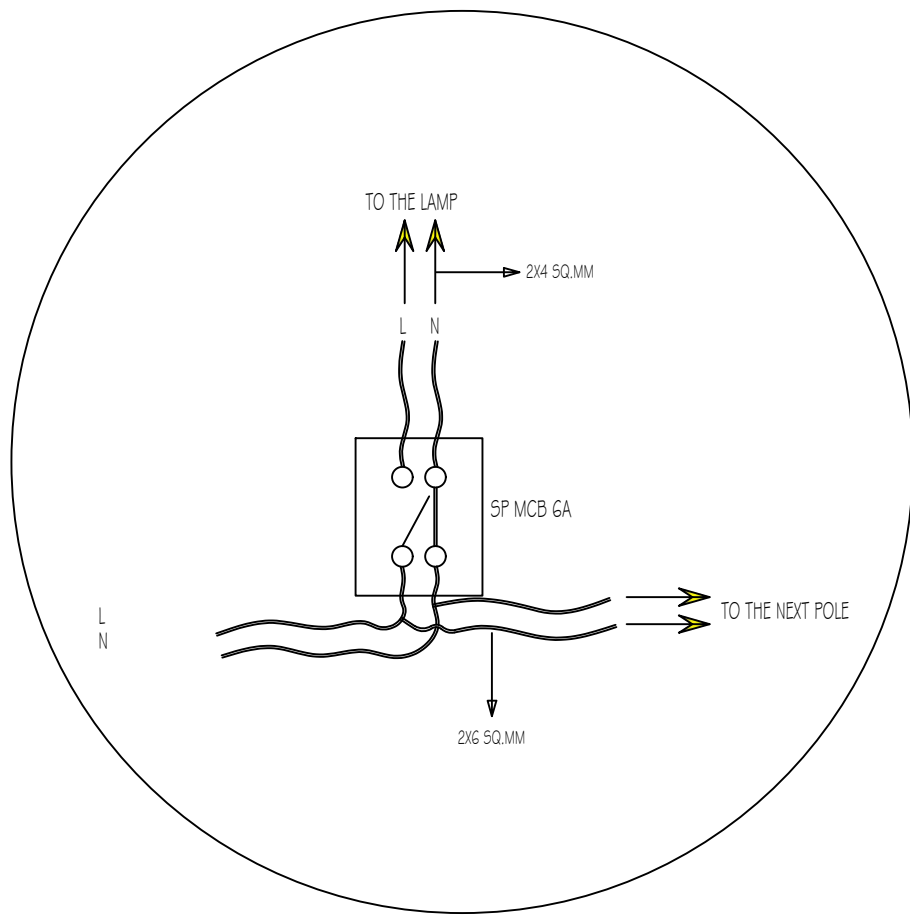
PROJECT TITLE : FUEL RETAIL OUTLET		LOCATION : CHAMKUNA LAP, TOORSA	DATE: MARCH 2020	SHEET NO ELE-10	NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER	
DRAWING TITLE : COMPOUND LIGHTING DETAILS	SCALE : 1:40	CLIENT: STCBL		DESIGN & DRAWN BY		C:\Pict\resel@green-design-studio.com
				RITESH PRADHAN CDB NO-[240]	ELECTRICAL ENGINEER GREEN DESIGN STUDIO	

www.greendesign.com.bt
gdsbshutan@gmail.com
+975 17848708
FLAT NO 8,GONGDZIN LAM
ABOVE 8/11 CONVENIENT
STORE
NEXT TO THIMPHU
THROMDE BUILDING
THIMPHU,BHUTAN

POLE DETAILS

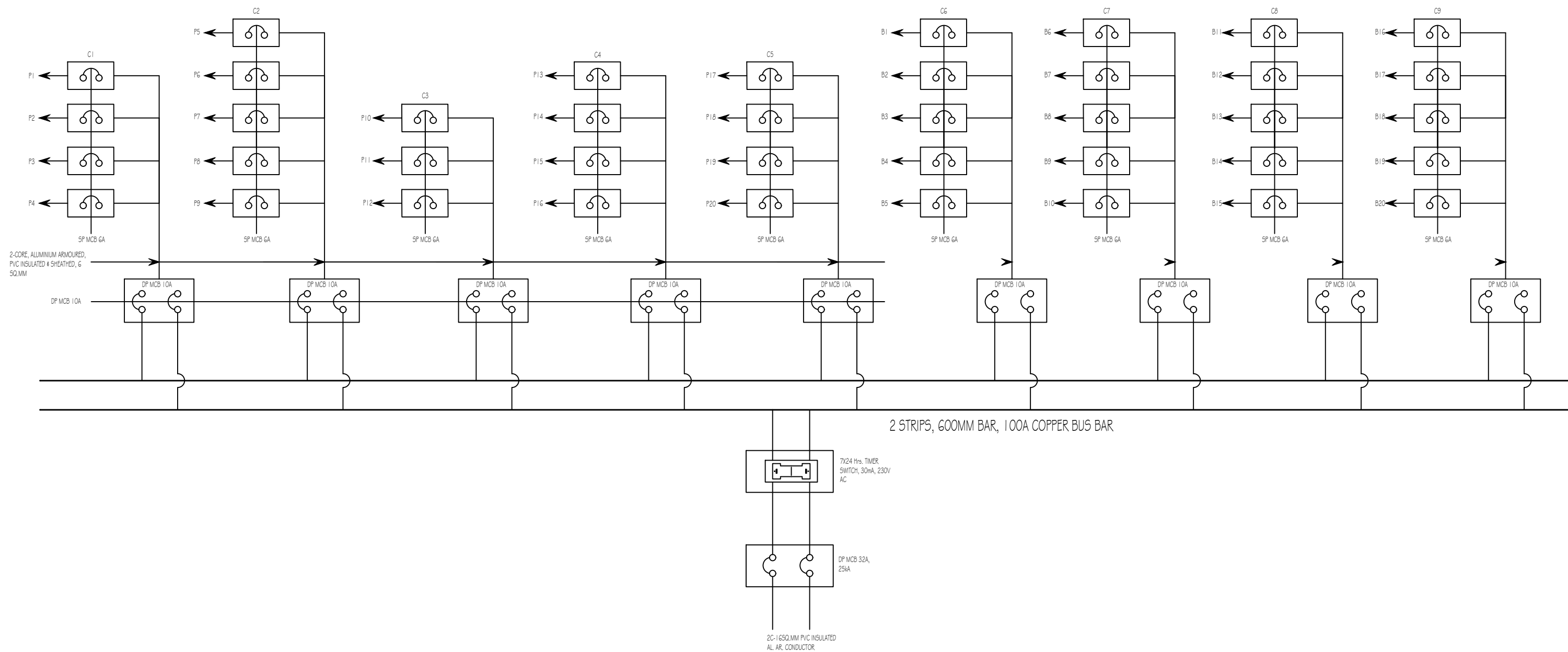


ENLARGED JUNCTION BOX DETAILS



PROJECT TITLE : FUEL RETAIL OUTLET		LOCATION : CHAMKUNA LAP, TOORSA	DATE: MARCH 2020	SHEET NO ELE-12	NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER	
DRAWING TITLE : COMPOUND LIGHTING - POLE DETAILS	SCALE : 1:40	CLIENT: STCBL		DESIGN & DRAWN BY RITESH PRADHAN CDB NO-[240]		
				ELECTRICAL ENGINEER GREEN DESIGN STUDIO		www.greendesign.com.bt gdsbhutan@gmail.com +975 17848708 FLAT NO 8, GONGDZIN LAM ABOVE 8/11 CONVENIENT STORE NEXT TO THIMPHU THROMDE BUILDING THIMPHU, BHUTAN

SINGLE LINE DIAGRAM OF COMPOUND LIGHTING



PROJECT TITLE : FUEL RETAIL OUTLET



LOCATION :
CHAMKUNA LAP, TOORSA

DATE:
MARCH 2020

SHEET NO ELE-13

NOTE:

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE
ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE
ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF
ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER

www.greendesign.com.bt
gdsbshutan@gmail.com
+975 17848708

FLAT NO 8, GONGDZIN LAM
ABOVE 8/11 CONVENIENT
STORE
NEXT TO THIMPHU
THROMDE BUILDING
THIMPHU, BHUTAN

DRAWING TITLE : COMPOUND LIGHTING - FEEDER PILLAR SINGLE LINE DIAGRAM

SCALE : 1:40

CLIENT: STCBL

DESIGN & DRAWN BY

RITESH PRADHAN
CDB NO-[240]

ELECTRICAL ENGINEER
GREEN DESIGN STUDIO

C:\Picture\greendesign\logos\prgs

LOAD CALCULATION

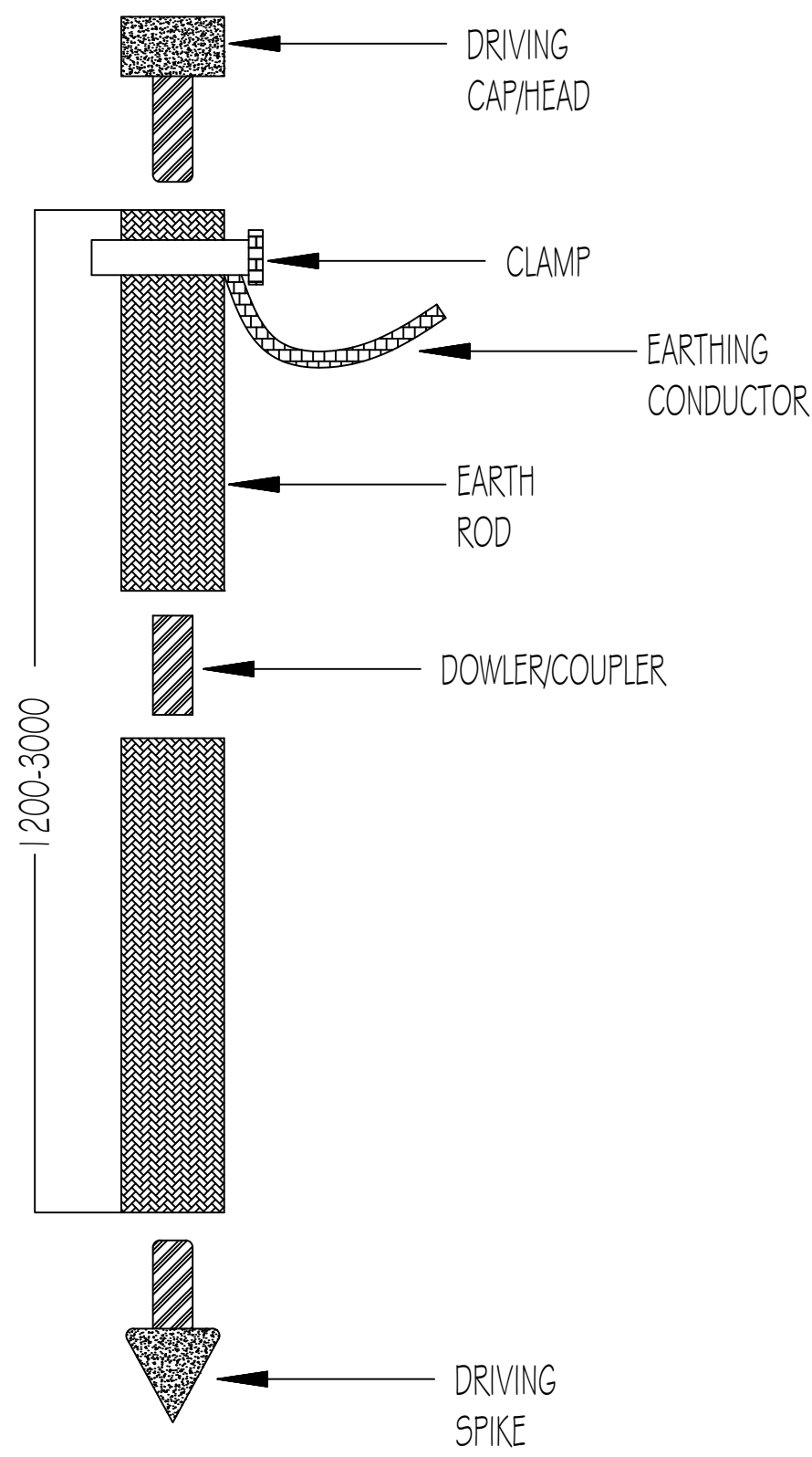
CIRCUIT NO.	OUTGOING MCB RATING AT FEEDER PILLAR	NO. OF POINTS	MCB RATING AT JUNCTION BOX	LOAD IN WATTS	OUTGOING CABLE SIZE
CIRCUIT 1	DP MCB 10A	4	4 NO ₅ .5P MCB 6A	500 W	2CX6 SQ.MM
CIRCUIT 2	DP MCB 10A	5	5 NO ₅ .5P MCB 6A	625 W	2CX6 SQ.MM
CIRCUIT 3	DP MCB 10A	3	3 NO ₅ .5P MCB 6A	375 W	2CX6 SQ.MM
CIRCUIT 4	DP MCB 10A	4	4 NO ₅ .5P MCB 6A	500 W	2CX6 SQ.MM
CIRCUIT 5	DP MCB 10A	4	4 NO ₅ .5P MCB 6A	500 W	2CX6 SQ.MM
CIRCUIT 6	DP MCB 10A	5	5 NO ₅ .5P MCB 6A	400 W	2CX6 SQ.MM
CIRCUIT 7	DP MCB 10A	5	5 NO ₅ .5P MCB 6A	400 W	2CX6 SQ.MM
CIRCUIT 8	DP MCB 10A	5	5 NO ₅ .5P MCB 6A	400 W	2CX6 SQ.MM
CIRCUIT 9	DP MCB 10A	5	5 NO ₅ .5P MCB 6A	400 W	2CX6 SQ.MM

NOTE: THE RATING OF THE POLE MOUNTED LIGHTS ARE 150A EACH AND 80W FOR CANOPY LIGHTS.

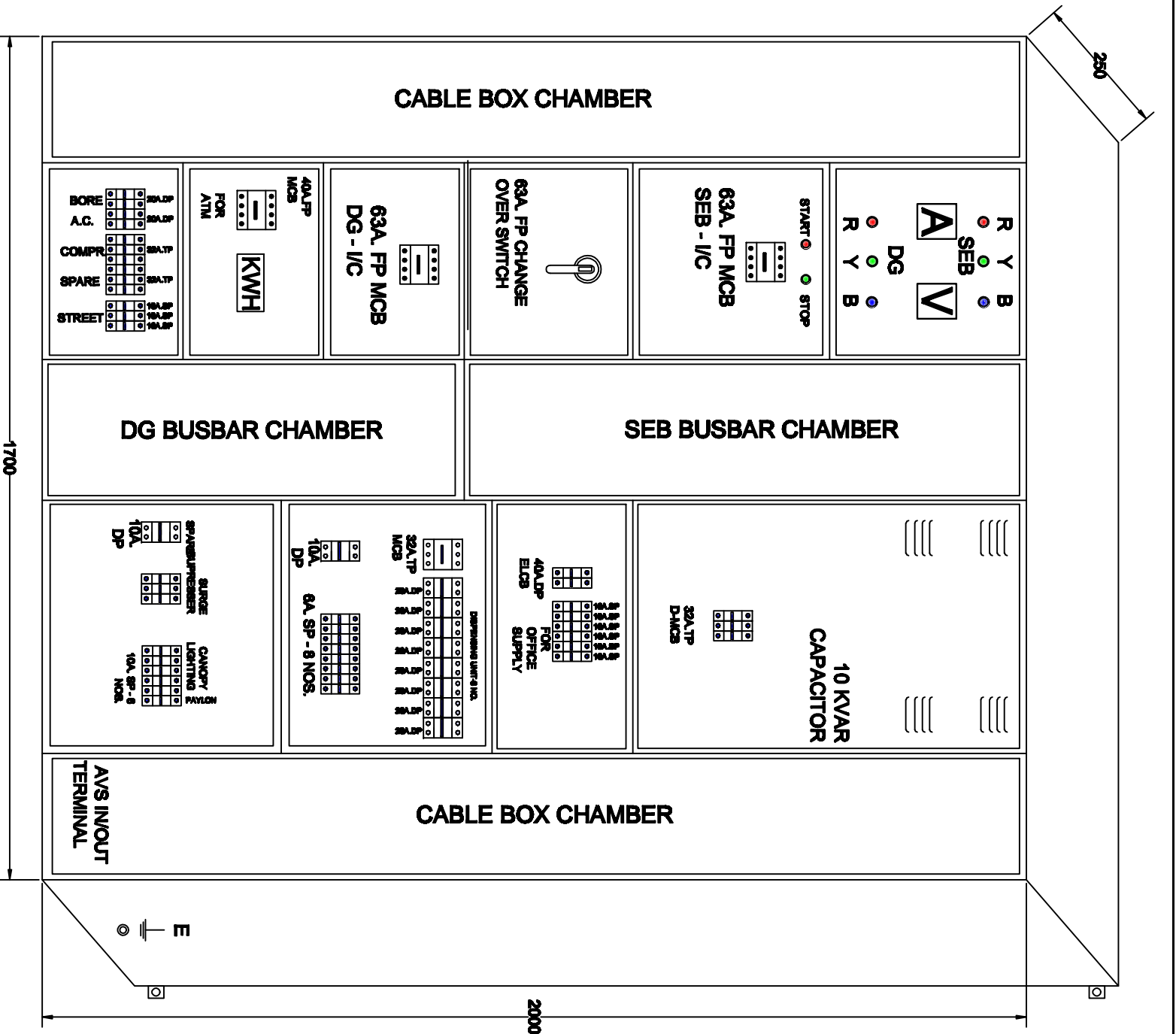
CONNECTED LOAD	4100 W
LOAD FACTOR	100 %
DEMAND LOAD	4100 W
LOAD CURRENT	20.97 A

PROJECT TITLE : FUEL RETAIL OUTLET		LOCATION : CHAMKUNA LAP, TOORSA	DATE: MARCH 2020	SHEET NO ELE-14	NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER		www.greendesign.com.bt gdsbhutan@gmail.com +975 17848708
DRAWING TITLE : COMPOUND LIGHTING - LOAD CALCULATIONS	SCALE : 1:40	CLIENT: STCBL		DESIGN & DRAWN BY		C:\Pictures\greendesign\logos.png	FLAT NO 8,GONGDZIN LAM ABOVE 8/11 CONVENIENT STORE NEXT TO THIMPHU THROMDE BUILDING THIMPHU,BHUTAN
				RITESH PRADHAN CDB NO-[240]	ELECTRICAL ENGINEER GREEN DESIGN STUDIO		

ROD EARTHING DETAILS



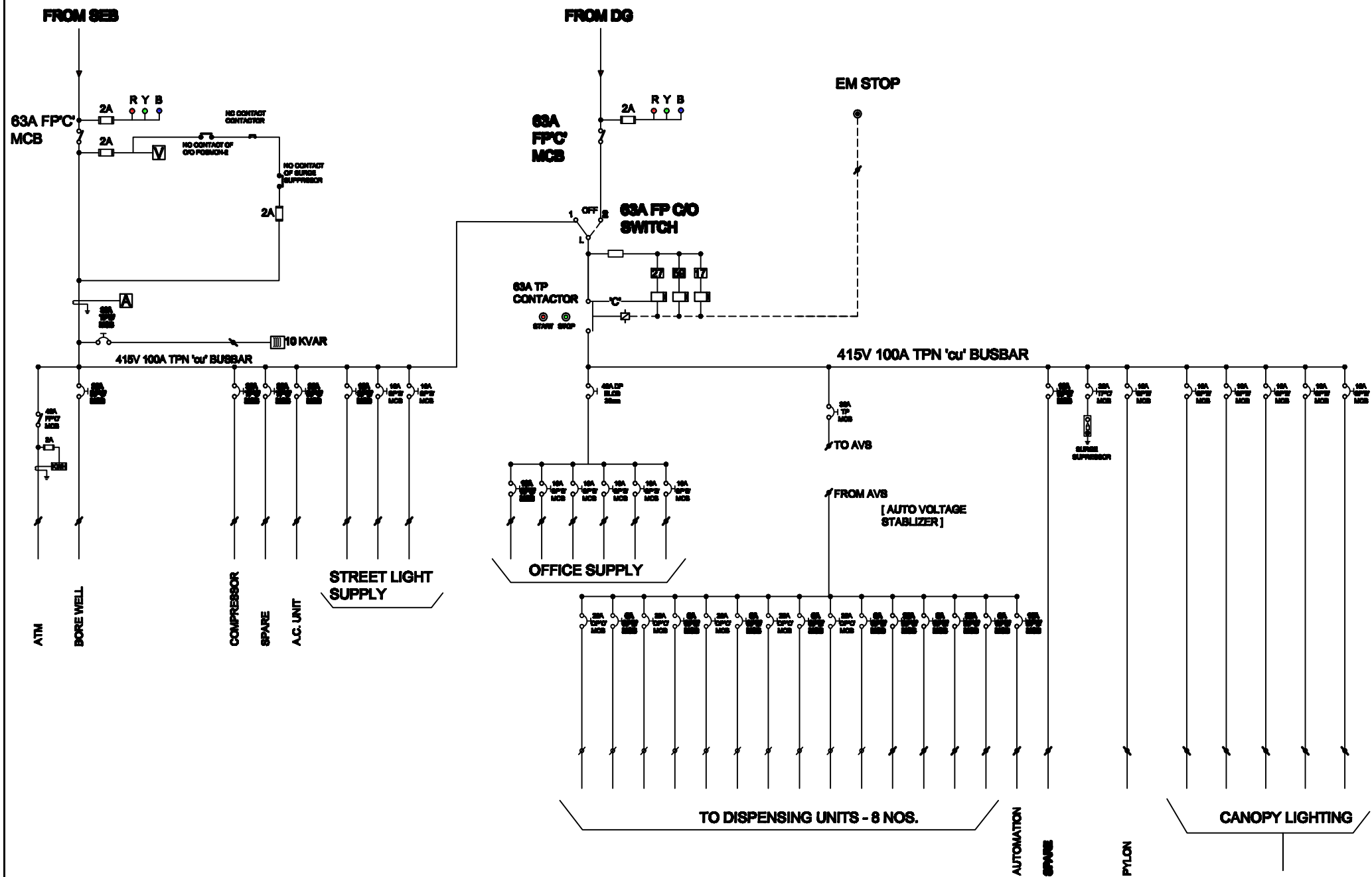
PROJECT TITLE : FUEL RETAIL OUTLET		LOCATION : CHAMKUNA LAP, TOORSA	DATE: MARCH 2020	SHEET NO ELE-15	NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE ALL DIMENSIONS ARE TO BE READ AND NOT SCALE OFF ANY DISCREPANCY IN DRAWING IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE ARCHITECT AND THE ENGINEER	
DRAWING TITLE : COMPOUND LIGHTING - ROD EARTHING DETAILS	SCALE : 1:40	CLIENT: STCBL		DESIGN & DRAWN BY		
				RITESH PRADHAN CDB NO-[240]		www.greendesign.com.bt gdsbhutan@gmail.com +975 17848708 FLAT NO 8,GONGDZIN LAM ABOVE 8/11 CONVENIENT STORE NEXT TO THIMPHU THROMDE BUILDING THIMPHU,BHUTAN



- SPECIFICATION:-**
- A) CONSTRUCTION : 16 SWG-CRCA SHEET
 - B) PAINT : POWDER COATING SIEMENS GREY.
 - C) SWITCHGEAR : L & T / SCHNEIDER / C&S
 - D) BUS BAR : COPPER
 - E) COS : L&T OR HPL
 - F) MCB & ELCB : HAGER / SCHNEIDER / C&S
 - G) CAPACITOR : EPCOS / SIEMENS
 - H) IND. LAMPS : TECHNIC
 - I) GLAND PLATE : 14 SWG.
 - J) PANEL MOUNTING : WALL
 - K) CABLE ENTRY : BOTTOM

25 KW G.A. DRG.

INDEX	
R	CONNECTION FROM RED PHASE
Y	CONNECTION FROM YELLOW PHASE
B	CONNECTION FROM BLUE PHASE



25 KW SLD DRG.