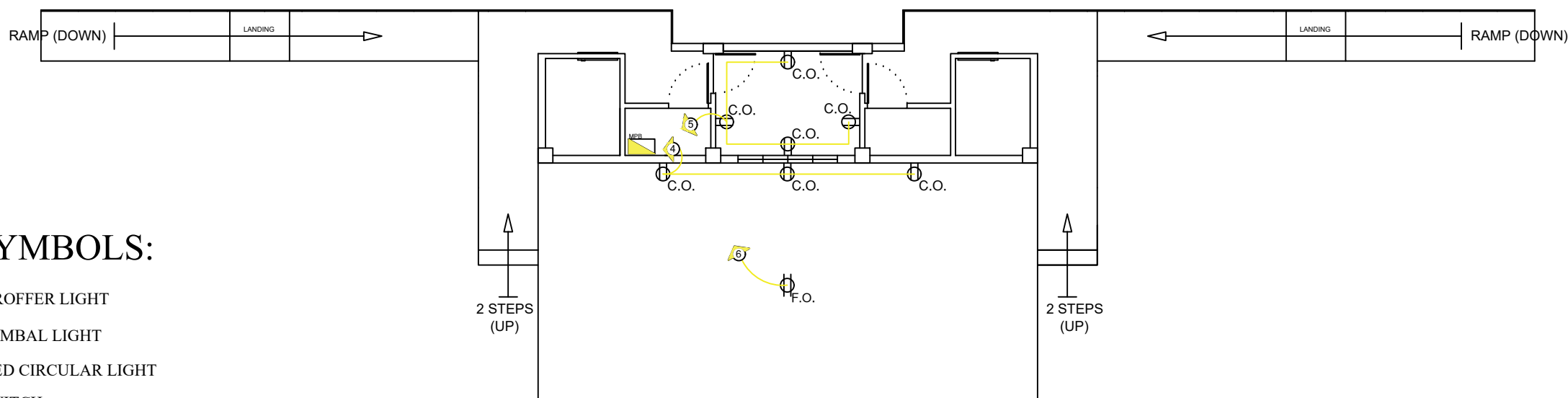


PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGION CAMPUS
LIGHTING LAYOUT
 SCALE: _____ NTS



PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGION CAMPUS
POWER LAYOUT
 SCALE: _____ NTS

LEGEND & SYMBOLS:

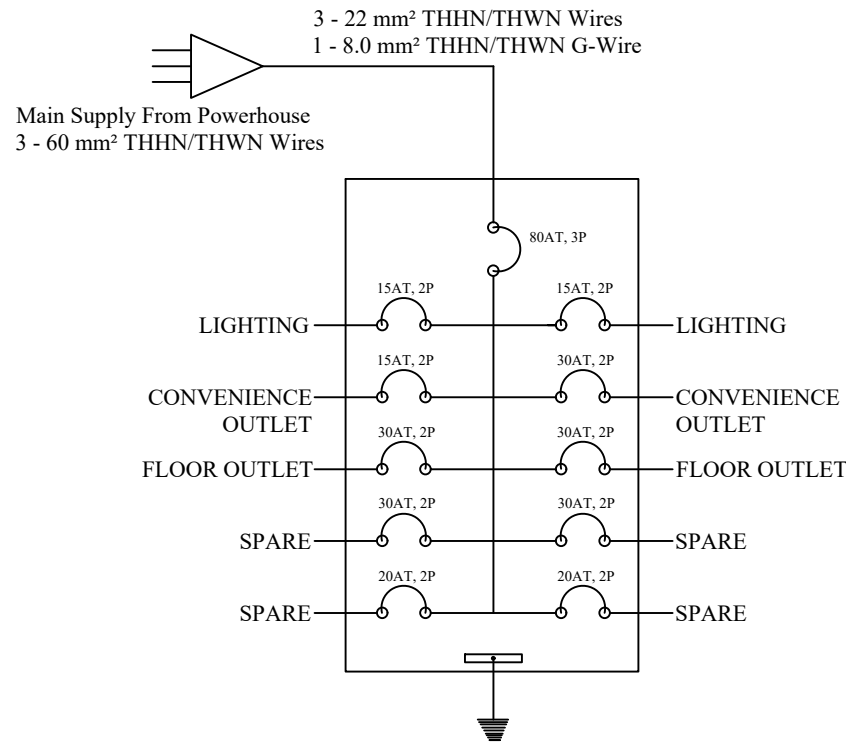
-  30WATTS TROFFER LIGHT
-  30WATTS GIMBAL LIGHT
-  30WATTS LED CIRCULAR LIGHT
-  2 - GANG SWITCH
-  3 - GANG SWITCH
-  4 - GANG FLOOR OUTLET
-  2 - GANG CONVENIENCE OUTLET
-  PANELBOARD

GENERAL NOTES

- All electrical works herein shall be in accordance with the provisions of the latest edition of Philippine Electrical Code (PEC) with the requirements of the local utility companies concerned and with the local enforcing authorities.
- All electrical works herein shall be executed by experience personnel under the direct supervision of a duly licensed professional Registered Electrical Engineer.
- The contractor shall verify and orient the actual location of service entrance for connection of power and communication supplies.
- The type of power for the branches to be supplied shall be 230V, 1-phase, 2 wires, 60 Hertz unless otherwise specified. The size of wire shall be 2.0 mm² THW/THHN for lighting system and 5.5 mm² for power system, conduit shall be 20mm PVC and 20mm PVC.
- The type of main power supply of the campus was 230V, 3 phase, 3 Wires, 60 Hertz. The size of wire on actual site was 3 - 60 mm² THHN/THWN wire.
- All materials to be used shall be new and approved type for the location and purpose unless otherwise indicated on the drawing, Polyvinyl Chloride (PVC) conduit shall be used for imbedded wiring and Rigid Steel Conduit for exposed wiring.
- All wired shall be copper and thermoplastic insulated type THHN/THWN unless otherwise indicated in the plans.
- All mounting heights are subject to architects approval prior to installation.

Mounting Heights:

- Wall Switch -----1.372 m (from center of device to finished floor line)
- Panel Board -----1.83 m (from top of panel to finished floor line)
- Convenience outlet-----.45m (from center of device to finished floor line)
- Convenience outlet @ Bathroom-----1.40 m (from top of device to finished floor line)



PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGION CAMPUS
SINGLE LINE DIAGRAM
 SCALE: _____ NTS

CKT NO.	DESCRIPTION	NO. OF OUTLET	VA PER OUTLET	VOLTAGE	TOTAL LOAD (VA)	AMPERES (A)				PROTECTION (AT)	POLE	WIRES	PIPES
						AB	BC	CA	3φ				
1	LIGHTING OUTLET	4	100	230	400			1.74		15	2	2-2.0 mm ² THHN/THWN	PVC 20mm Ø
2	LIGHTING OUTLET	5	100	230	500		2.17			15	2	2-2.0 mm ² THHN/THWN	PVC 20mm Ø
3	LIGHTING OUTLET	10	100	230	1000	4.35				15	2	2-2.0 mm ² THHN/THWN	PVC 20mm Ø
4	CONVENIENCE OULET - 2 GANG	4	180	230	1440			6.26		30	2	2-5.5 mm ² THHN/THWN	PVC 20mm Ø
5	CONVENIENCE OULET - 2 GANG	3	180	230	1080		4.69			30	2	2-5.5 mm ² THHN/THWN	PVC 20mm Ø
6	FLOOR OUTLET - 4 GANG	1	180	230	720	3.13				30	2	2-5.5 mm ² THHN/THWN	PVC 20mm Ø
7	SPARE			230						30	2		
8	SPARE			230						30	2		
9	SPARE			230						20	2		
10	SPARE			230						20	2		
TOTAL					5140	7.48	6.86	8.0					

$I = P/V$

CURRENT @ AB

$I_{AB} = (1000+720)/230$
 $I_{AB} = 7.48A$

CURRENT @ BC

$I_{BC} = (500+1080)/230$
 $I_{BC} = 6.86A$

CURRENT @ CA

$I_{CA} = (400+1440)/230$
 $I_{CA} = 8.0A$

TOTAL CURRENT (I_{ϕ})

$I_{\phi} = (I_{AB}+I_{BC}+I_{CA})$
 $I_{\phi} = 7.48A + 6.86A + 8.0A$
 $I_{\phi} = 22.34 A$

$I_L = (I_{\phi}/1.732)$
 $I_L = 22.34A/1.732$
 $I_L = 12.90A$

USE:

- Main Wires: 3 - 22 mm² THHN/THWN
- Ground Wire: 1 - 8.0 mm² THHN/THWN
- PIPES: PVC 50mm Ø
- Main Circuit Breaker : 80AT, 3 Pole, 3φ, 60HZ, 230V

PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGION CAMPUS
SCHEDULE OF LOADS
 SCALE: _____ NTS

