A

ELECTRICAL LAYOUT

SCALE 1:100

FOR LOCATION A,C

GENERAL ELECTRICAL NOTES :

ALL ELECTRICAL INSTALLATION SHALL BE DONE IN WORKMANLIKE MANNER AND IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE (P.E.C.) NATIONAL BUILDING CODE OF THE PHILIPPINES AND THE REQUIREMENT OF THE POWER COMPANY.

GROUNDING SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE. ALL NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT FRAMES OR ENCLOSURES SHALL BE CONNECTED TO EQUIPMENT GROUNDING SYSTEM WIRE WITH SOFT DRAWN COPPER WIRE & SUITABLE TERMINAL LUGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO ENSURE THE INSTALLATION OF ALL WORKS WITHIN THE AVAILABLE SPACE. MINIMUM SIZE OF WIRE TO BE USED SHALL BE 2.0mm2 FOR LIGHTING AND 3.5mm2 FOR POWER.

LAYOUT SHOWN ON THE PLANS ARE DIAGRAMATIC AND SHALL WHEN NECESSARY BE ALTERED IN THE FIELD TO SUIT CONDITIONS AND LOCATION.

PULL BOXES SHALL BE PROVIDED WHENEVER NECESSARY TO FACILITATE WIRE PULLING EVEN IF THESE ARE NOT INDICATED ON THE PLANS.

ALL ELECTRICAL MATERIALS TO BE USED SHALL BE NEW AND THE APPROVED TYPE FOR THE LOCATION AND PURPOSES.

ALL WORKS SHALL BE DONE BY EXPERIENCED ELECTRICIANS AND UNDER THE SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER.

CONDUCT INSULATION TEST ON ALL WIRINGS, FIXTURES AND DEVICES INSTALLED AND COMPLETED BEFORE APPLYING POWER, SUBMIT RECORDED MEASUREMENTS OF INSULATION TEST PER SERVICE ENTRANCE, FEEDERS AND AND BRANCH CIRCUIT TESTED.

WIRING SHALL BE STANDARD COPPER BUILDING WIRE NOTED 600V, THE CORE AREA AND TYPE OF INSULATION ARE NOTED ELSE WHERE IN THE DRAWINGS

WIRINGS SHALL BE INSTALLED INSIDE THE PVC CONDUIT PIPE TUBING, EMBEDDED INSIDE A CONCRETE FLOORS, COLUMNS, BEAMS, CHB WALLS, PARTITIONS, AND CONCEILED INSIDE A CEILING SPACES

REFER TO ELECTRICAL SPECIFICATIONS FOR SPECIFIC INFORMATIONS.

LOAD COMPUTATION

PANEL BOARD (PB1)

CKT.NO	LOAD DESCRIPTION	NO. OF OUTLETS	VOLTAGE	TOTAL VA	AMP/CKT.	AMP./PHASE			CKT. PROTECTION		SIZE OF WIRE		SIZE OF CONDUIT	
						AB	BC	CA	AT	AF	mm²	TYPE	mm²	TYPE
1	10HP Motor	1	230			28.00	28.00	28.00	75	100	3-14.0	THWN	32	PVC/EMT
2	1.5HP Water Pump (Submenrsible)	1	230			5.20	5.20	5.20	30	50	3-5.5	THWN	25	PVC/EMT
3	SPARE (10Hp motor)					28.00	28.00	28.00	75	100				
4	SPARE (1.5Hp motor)					5.20	5.20	5.20	30	50				
					Total	**66.40**	**66.40**	**66.40**						

Line Current = (1.73) x **66.40**
= 114.87 A

For Feeder Conductor = 1.25 x 114.87 A = 143.59 A
Use 3 - 50mm² THHN cu.wire in 65mm PVC/EMT pipe/Flexible hose
w/ 14.0mm² THHN Copper wire as Grounding wire

For Feeder Protection Use 150AT, 200AF, 3Phase 230V, 60Hz, MCCB Bolt on Type
w/ grounding busbar in Nema 3R Enclosure
gauge 16, Industrial type, Thermal magnetic

PHILRICE
PHILIPPINE RICE RESEARCH INSTITUTE
CENTRAL EXPERIMENT STATION
MALIGAYA, MUNOZ CITY, NUEVA ECIJA

R.A. 9266 - ART. 3, SECTION 20
Drawings and Specifications duly signed, stamped or sealed, as instruments of service are the intellectual properties and documents of the architect, whether the object for which they are made is executed or not. It shall be unlawful for any person, without the consent of the architect or author of said documents, to duplicate or to make copies of said documents for use in the repetition of and for other projects or buildings, whether executed partly or in whole.

PROJECT TITLE:
WASTE WATER FILTRATION/TREATMENT PLANT FOR PHILRICE CES
PHILRICE - CES, MALIGAYA, SCIENCE CITY OF MUNOZ NUEVA ECIJA

PRODUCED BY:
PHYSICAL PLANT DIVISION
INFRASTRUCTURE UNIT
PHILRICE
SCIENCE CITY OF MU OZ, NUEVA ECIJA

NOTED:
Arch. RENATO B. BAJIT
FPD DIVISION HEAD
PHILRICE-CES

END-USER:

RECOMMENDING APPROVAL:
ABNER T. MONTECALVO
DED FOR ASF
PHILRICE-CES

APPROVED:
Dr. JOHN C. DE LEON
EXECUTIVE DIRECTOR
PHILRICE-CES

DESIGN BY: RBB
DATE: MAY 2019
CADD BY: RBM
DATE: MAY 2019
CHECKED BY: RBB

SHEET NUMBER:
E1
25 XX