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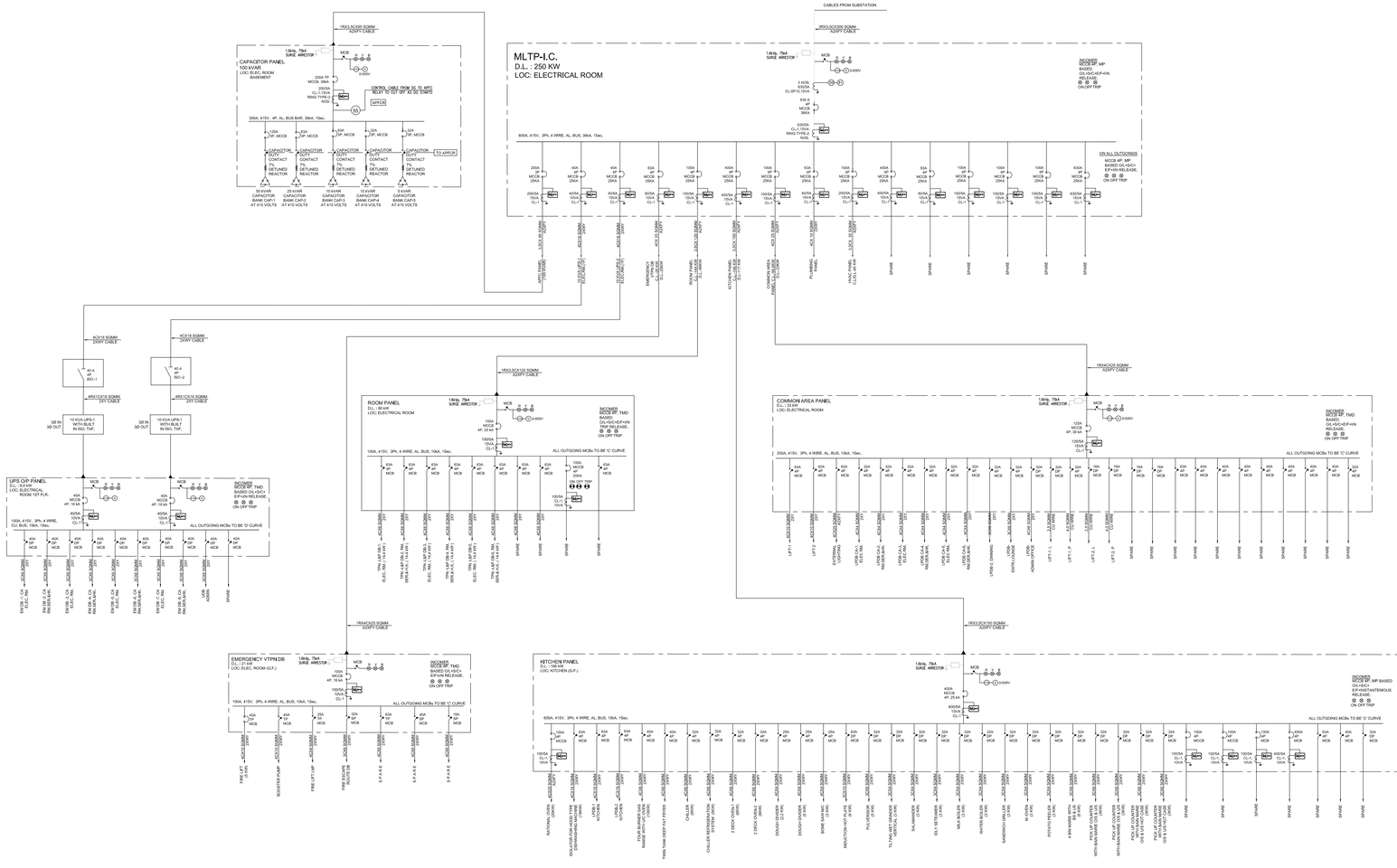

4 SINGLE LINE DIAGRAM

LEGEND

	AIR CIRCUIT BREAKER
	MOULDED CASE CIRCUIT BREAKER
	MINITURE CIRCUIT BREAKER
LM	LOAD MANAGER
	EARTH
	CURRENT TRANSFORMER
	ISOLATOR
	MOTOR PROTECTION CIRCUIT BREAKER
	INDICATION LAMPS
	SC - SPRING CHANGED
	SP - SERVICE POSITION
	TP - TEST POSITION
	CSH - CONTROL SUPPLY HEALTHY
	LTPB - LAMP TEST PUSH BUTTON
	TCPB - TRIP COIL PUSH BUTTON
	ETPB - EMERGENCY TRIP PUSH BUTTON
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
APFCR	AUTOMATIC POWER FACTOR CORRECTION RELAY
EF	EARTH FAULT RELAY
	MULTI FUNCTION METER
EMI'S	ELECTRICAL MEC. INTERLOCK
49 Qwind	MACHINE OR TRANSFORMER THERMAL RELAY
GN	NEUTRAL GROUND OVER-CURRENT RELAY
81	FREQUENCY RELAY
59	OVER-VOLTAGE RELAY
51	AC TIME OVER-CURRENT RELAY
51N	TIME DELAY GROUND FAULT RELAY
V	VOLTMETER
VSS	VOLTMETER SELECTOR SWITCH
ASS	AMMETER SELECTOR SWITCH
A	AMMETER
	FUSE
	MARSHALLING BOX
	SURGE ARRESTER
	CAPACITOR BANK
	ANNUNCIATOR

NOTES:

1. ALL SWITCHGEARS SHALL BE PROVIDED WITH TNC SWITCHES.
2. ALL SURGE ARRESTER SHALL BE WITH SURGE COUNTER.
3. ALL MCBS SHALL BE CURRENT LIMITING TYPE.
4. THE ON / OFF AND TRIP POSITION OF MCCB SHALL BE CLEARLY INDICATED. SUITABLE HANDLE FOR OPERATING MCCBS WITH THE DOOR CLOSED SHALL BE PROVIDED.
5. ALL INDICATING LAMPS SHALL BE MULTICHIP LED TYPE.
6. ALL BUS COUPLERS SHOULD BE WITH ON (RED) & OFF (GREEN) INDICATION LAMPS.
7. MULTI FUCTION METER & ENERGY METER SHALL BE PROVIDED WITH (BUT NOT LIMITED TO) FOLLOWING METERING FEATURES: CURRENT, VOLTAGE, ENERGY (KWH), MD (KW / KVA).
8. ALL VERTICAL & HORIZONTAL BUSBARS SHALL BE WITH MENTIONED RATING THROUGHOUT.
9. MPCB SHALL BE USED INSTEAD OF FUSE WHILE FEEDING CONTROL SUPPLY VOLTAGE I.E. 230V AC DIRECTLY DERIVED FROM AC BUS.
10. ALL MCCB FEEDERS ON ALL PANELS SHALL BE PROVIDED WITH ON/OFF/TRIP POSITION AUXILIARY CONTACTS.
11. ALL MOTOR FEEDER / RELAY SCHEMES & CONTROLS SHALL SUIT TO MOTOR CAPACITY AS PER TYPE 2 COORDINATION.
12. MULTI FUNCTION METER (MFM) SHALL BE CLASS-1 AND SHALL BE PROVIDED WITH RS485 PORT & MOD BUS COMMUNICATION PROTOCOL.
13. METAL ENGRAVED CAUTION BOARD'S SHALL BE RIVETTED ON COVERS FOR BUSBAR CHAMBERS.
14. NEUTRAL IS REQUIRED FOR ALL PANELS AS SHOWN,SIZE OF NEUTRAL SHALL BE 50% OF PHASE FOR ALL PANELS EXCEPT UPS PANELS.FOR UPS PANLES NEUTRAL SHALL BE 200% OF PHASE.
15. FOR 3.5 CORE CABLE WITH MFM / EM IS NOT REQUIRED, HOWEVER, SPACE PROVISION SHALL BE MADE FOR MFM / EM.
16. ALL SIGNALS MONITORING SHALL BE SOFT SIGNALS RS485 PORT.
17. THE CONTRACTOR AND PANEL VENDOR IS RESPONSIBLE FOR RELAY/RELEASE COORDINATION. OVERCURRENT/EARTH FAULT/SHORT CIRCUIT CURRENTSETTINGS AT VARIOUS LEVELS AND AT EACH PANELIDE, TO ACHIEVE PROPER FAULT DISCRIMINATION,RELAY SETTINGS AT EACH VOLTAGE LEVEL SHALL BE FURNISHED BY THE CONTRACTOR AND SET AT SITE BY ELECTRICAL CONTRACTOR TO ACHIEVE PROPER DISCRIMINATION.

NOTES

1. ALL DIMENSIONS SHALL BE CHECKED AND CO-RELATED WITH THE STRUCTURAL DRAWINGS AND ANY AMBIGUITY SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF THE ARCHITECT BEFORE COMMENCEMENT OF THE WORK.
2. ALL DIMENSIONS ARE IN CENTIMETERS UNLESS AND OTHERWISE SPECIFIED
3. ALL LEVELS ARE FINISHED LEVELS.
4. ALL MARGINS, CLEARENCES ETC. REQUIRED AS PER BYE-LAWS SHOULD BE CHECKED AND PROVIDED BY THE CONTRACTOR AND ANY DESCRIPENCIES FOUND SHOULD BE IMMIDIATELY BROUGHT TO THE NOTICE OF ARCHITECT BEFORE COMMENCEMENT OF WORK.

No.	Date.	Remarks.
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Project

Nalanda University, Rajgir, Bihar

Title

SINGLE LINE DIGRAM – ELECTRICAL

FOR TENDER

Dealt :	AD	Drawing No.	
Checked :	MT		NUC(1)–IC–E4.0
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