

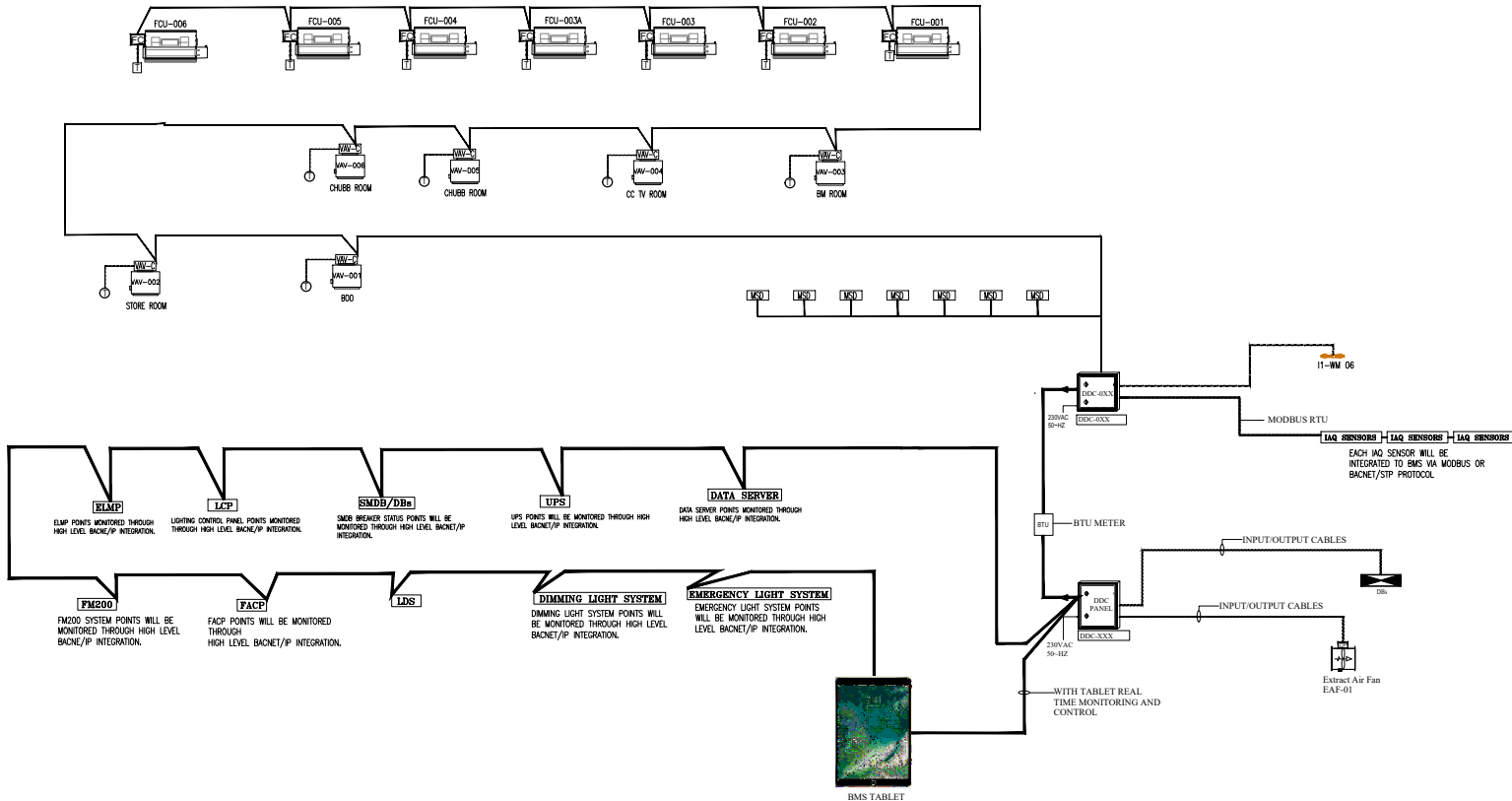
PROJECT : PU 23188 ENBD ELECTRA									
BMS I/O DATA POINT SCHEDULE									
S.No	EQUIPMENT REF & CONTROL FUNCTION	QTY	POINT TYPE					PERIPHERAL EQUIPMENT / REMARKS	
			AI	AO	DI	DO	HL		
HVAC									
1	FAN COIL UNIT (Ref. FCU)								
	FCU start stop + 3 speed command					1			FCU Terminal Box
	Fan run status				1				Volt Free Contact
	Room temperature and Set point adjustment		1						Return air temperature sensor
	On/Off valve modulating			1					on/off actuator
	FCU (Typical)		1	0	1	1	0		
	TOTAL FOR FCU	8	8	8	8	8	0		ACTUATOR
2	VARIABLE AIR VOLUME UNIT (Ref. VAV)	1							
	Damper position feedback		1						0-10V signal
	Damper modulate command			1					Control Relay
	Room temperature		1						Return Air Temperature Sensor
	Room temperature setpoint			1					Volt Free Contact
	VAV (Typical)		2	2	0	0	0		
	TOTAL FOR VAV	5	10	10	0	0	0		
3	CO2 & IAQ SENSORS								
	CO2 Levels							7	Modbus / BACnet
4	CO2 & IAQ SENSORS								
	Damper position feedback		1						0-10V signal
	Damper modulate command			1					Control Relay
ELECTRICAL									
5	SMDB/ DB / MCC PANELS	1							
	Earth Fault				1				Volt Free Contact
	PMU				3				Volt Free Contact
	Total for SMDB/MCC (Typical)		0	0	4	0	0		
6	LIGHTING CONTROL PANEL (Ref. LCP)	1							
	Panel common fault				1				Volt Free Contact
	Seamless Integration of LCP				1			1	BACnet Software Integration
	Total for UPS (Typical)		0	0	2	0	1		
7	UPS SYSTEM	1							
	Panel Healthy Status				1				Volt Free Contact
	Common Fault Alarm				1				Volt Free Contact
8	FACP	1							
	Panel Healthy Status				1				Volt Free Contact
	Common Fault Alarm				1				Volt Free Contact
	Total for Alarm (Typical)		0	0	2	0	0		

NOTE-Alternatively, contractor shall propose BACNET controller and protocol to DDC / BMS controller

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LEGEND		
SYMBOL	DESIGNATION	
—	25MM CONDUIT FOR BACnet MSTP COMMUNICATION CABLE FOR FCU'S	2CORE 22AWG SHIELDED CABLE
—	25MM CONDUIT FOR INPUT & OUTPUT CABLE	
—	25MM CONDUIT FOR M-BUS COMMUNICATION CABLE (FOR WATER AND BTU METER)	2CORE 18AWG UNSHIELDED CABLE
—	25MM CONDUIT FOR MODBUS COMMUNICATION CABLE(FOR PMU METER)	2CORE 18AWG SHIELDED CABLE
DDC	DDC PANEL (DIRECT DIGITAL CONTROLLER)	
CP	CONTROL PANEL	
⊖	THERMOSTAT	
FCU	FCU CONTROLLER	
—	FLYING LEAD TEMPERATURE SENSOR	
—	DUCT TEMPERATURE SENSOR	
□	WALL PLATE SENSOR	
—	WATER METER	
BTU	BTU METER	
PM	POWER MONITORING METER (BY OTHERS)	
IP	IP CONNECTIVITY (BY OTHERS)	
HMI	HMI PANEL	

NOTES:
1.BMS SCHEMATIC PROVIDED IS ONLY FOR GUIDANCE. CONTRACTOR TO INCLUDE A COMPLETE BMS SYSTEM MATCHING WITH DRAWINGS AND BOQ
2.CONTRACTOR SHOULD MEET LEED SPECIFICATION AND COORDINATE WITH AUTHORITY TO OBTAIN ALL NECESSARY APPROVALS AND PERMITS
3.TIME SHARING AC CONTROL TO BE CONSIDERED FOR ATM LOBBY AND SERVER ROOM FCU UNITS THROUGH BMS
4.CO2 SENSORS NEED TO BE INTERFACED WITH BMS SYSTEM AND DAMPERS TO BE CONTROLLED BY BMS BASED ON THE IAQ.
5.ACTUAL QUANTITY FOR MSD & IAQ SENSORS SHALL BE PROVIDED BY CONTRACTOR
6.BMS PROTOCOLS ARE SHOWN IN THIS DRAWING / DATA POINT SCHEDULE IS ONLY INDICATIVE. CONTRACTOR TO SUBMIT DATA POINT SCHEDULE AND ARCH LAYOUT AS PER APPROVED MATERIAL / PRODUCTS / PERIPHERALS WHICH ARE INTERFACED WITH CONTROLLERS / 3RD PARTY DEVICES.
7.QUANTITIES SHOWN IN THIS DRAWING ARE INDICATIVE ONLY. CONTRACTOR TO ALLOW FOR ACTUAL QUANTITY OF EQUIPMENT, PERIPHERALS AND CONTROLLERS FOR INTEGRATION OF COMPLETED BMS SYSTEM
8.THE ARCH LAYOUT SHOWN IS ONLY INDICATIVE. CONTRACTOR TO PROVIDE SEPARATE LOOP AS PER APPROVED MATERIAL /PERIPHERALS / CONTROLLERS PROTOCOL FOR BETTER INTEGRATION.
9.TIME SHARING PANEL FOR FCUS SHALL BE PROVIDED AND INTEGRATED WITH BMS SYSTEM.



REMARKS :

1. ALL DIMENSIONS SHOWN ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
2. THE CONTRACTOR SHALL VERIFY ALL THE ACTUAL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION OR INSTALLATION OF MATERIALS.
3. THE CONTRACTOR SHALL NOTIFY DESIGNER IMMEDIATELY FOR ANY DISCREPANCIES FOUND IN THE DRAWINGS.

TO	ISSUED FOR TENDER	VP	MM	10.10.2023
REV	REVISION DESCRIPTION	DWN	CHKD	DATE

DRAWING STATUS
ISSUED FOR TENDER

CLIENT



MEP CONSULTANT



PROJECT TITLE

ENBD - ELECTRA BRANCH

LOCATION

ELECTRA STREET, ABU DHABI, UAE

DRAWING TITLE

BMS SCHEMATIC DIAGRAM

INTERIOR DESIGN CONSULTANT



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DRAWN BY	CHECKED BY	DWG. SCALE	DWG. SIZE
AS	MM	NTS	A3
DRAWING NUMBER		ISSUED DATE	
PU 23188-BMS-SC-300		03 OCT 2023	