

Existing BMS – Outstations 1-12

The system comprises of an 12 existing Cylon BMS outstations – see points list below:

O/S 1-1		MCC1 Boiler House	
AH	1	Main hospital heat meter	Pulses
AH	2	Second hospital heat meter	Pulses
AH	3	HWS heat meter	Pulses
AH	4	LPHW Main Flow Temp	°C
AH	5	Press unit tank water meter	Pulses
DH	6	Medical Gas panel No.1	Fault/Normal
DH	7	Medical Gas panel No.2	Fault/Normal
AH	8	Pump Set 3 Flow Temp	°C
DH	9	Boiler No.1 Lockout	Lockout/Normal
DH	10	Boiler No.2 Lockout	Lockout/Normal
DH	11	Boiler No.3 Lockout	Lockout/Normal
DH	12	Pump Set 1A Status	On/Off
DH	13	Pump Set 1B Status	On/Off
DH	14	Pump Set 2A Status	On/Off
DH	15	Pump Set 2B Status	On/Off
DH	16	Pump Set 3A Status	On/Off
AH	17	Steam Boiler 1 Enable/ 2 Enable	%
AH	18	Boiler 1 Enable/ Boiler 2 Enable	%
AH	19	Boiler 3 Enable / Gas Heater 1 Enable	%
AH	20	Pump Set 1 Enable/ Select	%
AH	21	Pump Set 2 Enable/ Select	%
AH	22	Pump Set 3 Enable/ Select	%
DH	23	Pump Set 3B Status	On/Off
DH	24	Outside Frost Stat	Frost/Normal

O/S 1-2		MCC1 Boiler House	
AH	1	Outside Temp Sensor	°C
AH	2	Pump Set 4 Flow Temp	°C
AH	3	Pump Set 5 Flow Temp	°C
AH	4	Constant Temp Flow Temp	°C
AH	5	Electric Meter	Pulses
AH	6	Gas Meter No.1	Pulses
AH	7	Gas meter No.2	Pulses
AH	8	Water Meter	Pulses
DH	9	Pump Set 4A Status	On/Off
DH	10	Pump Set 4B Status	On/Off
DH	11	Pump Set 5A Status	On/Off

DH	12	Pump Set 5B Status	On/Off
DH	13	Low Pressure Alarm	Trip/Normal
DH	14	High Pressure Alarm	Trip/Normal
DH	15	Cold Water Booster Set Common Alarm	Alarm/Normal
DH	16	Warmac Booster Set Common Alarm	Alarm/Normal
AH	17	Pump Set 4 Enable / Select	%
AH	18	Pump Set 5 Enable / Select	%
AH	19	Flue Dilution Fans Enable/ Select	%
AH	20	Boilerhouse EF Enable	%
AH	21	Rad Cct 2 Valve Open / Close	%
AH	22	Gas Heater No. 2 Enable/ No. 3 Enable	%
AH	23	Lilly Suite valve	%
AH	24	Spare	%

O/S 1-3 MCC1 Boiler House

AH	1	Spare 1	°C
AH	2	Spare 2	°C
AH	3	Spare 3	°C
AH	4	Spare 4	°C
AH	5	Gas Heaters Flow Temperature	°C
AH	6	Gas Heaters Return Temperature	°C
AH	7	Spare 7	°C
AH	8	Spare 8	°C
DH	9	Gas Heater 1 Alarm	Trip/Normal
DH	10	Gas Heater 2 Alarm	Trip/Normal
DH	11	Gas Heater 3 Alarm	Trip/Normal
DH	12	Pump set 1A fault	Fault/Normal
DH	13	Pump set 1B fault	Fault/Normal
DH	14	Spare 14	Trip
DH	15	Spare 15	Trip
DH	16	Spare 16	Trip
AH	17	17 Spare	°C
AH	18	18 Spare	°C
AH	19	19 Spare	°C
AH	20	20 Spare	%
AH	21	HWS 1 Isolation Valve/HWS 2 Isolation Valve	%
AH	22	HWS 3 Isolation Valve/Spare	%

O/S 1-4 MCC1 Boiler House

AH	1	Boiler 1 Flow Temperature	°C
AH	2	Boiler 2 Flow Temperature	°C
AH	3	Boiler 3 Flow Temperature	°C
AH	4	Boiler 1 Return Temperature	°C
AH	5	Boiler 2 Return Temperature	°C
AH	6	Boiler 3 Return Temperature	°C
AH	7	Pump Set 1 Flow Temp	°C

AH	8	Pump Set 2 Flow Temp	°C
AH	17	Spare	
AH	18	Spare	
AH	19	Spare	
AH	20	Spare	
AH	21	Spare	
AH	22	Spare	
AH	23	Spare	
AH	24	Spare	

O/S 1-5 MCC1A Boiler House

AH	1	Radiator Pump Set 1 Flow Temp	°C
AH	2	Conatant Temp Pump Set 2 Flow Temp	°C
DH	3	Booster Set 1 Common Alarm	Alarm/Normal
DH	4	Booster Set 2 Common Alarm	Alarm/Normal
DH	5	Booster Set 3 Common Alarm	Alarm/Normal
DH	6	Booster Set 4 Kitchen Common Alarm	Alarm/Normal
DH	7	Booster Set 5 Common Alarm	Alarm/Normal
DH	8	Spare	Alarm/Normal
DH	9	Pump Set 1A Status	On/Off
DH	10	Pump Set 1B Status	On/Off
DH	11	Pump Set 2A Status	On/Off
DH	12	Pump Set 2B Status	On/Off
DH	13	Pump Status	On/Off
DH	14	Tower Booster Set/Future	On/Off/Off
DH	15	Main/Lilly Suite Booster Set	On/Off/Off
DH	16	Fire Emergency Booster Set	On/Off/Off
AH	17	Pump Set 1 Enable/Select	%
AH	18	Pump Set 2 Enable/Select	%
AH	19	Pump Enable/Spare	%
AH	20	Spare/Spare	%
AH	21	Rad Cct Valve	%
DH	22	Booster Set 7 Common Alarm	Alarm/Normal
AH	23	Spare	
AH	24	Spare	

O/S 1-6 MCC1 Boiler House

AH	1	Main boiler flow header	°C
AH	2	Main boiler return header	°C
AH	3	Boiler No.1 flow	°C
AH	4	Boiler No.1 return	°C
AH	5	Boiler No.2 flow	°C
AH	6	Boiler No.2 return	°C
AH	7	Boiler No.3 flow	°C
AH	8	Boiler No.3 return	°C
DH	9	Main primary pump A current switch	On/Off

DH	10	Main primary pump B current switch	On/Off
DH	11	Boiler No.1 shunt pump status	On/Off
DH	12	Boiler No.2 shunt pump status	On/Off
DH	13	Boiler No.3 shunt pump status	On/Off
DH	14	Spare	On/Off
DH	15	Heat pump set 2A fault	On/Off
DH	16	Heat pump set 2B fault	On/Off

O/S 1-7 MCC1 Boiler House

AH	1	Boiler flow	°C
AH	2	Boiler return	°C
AH	3	Theatre flow	°C
AH	4	NICU flow	°C
AH	5	Small boiler plant gas meter	m3
AH	6	Theatre heat meter	kWh
AH	7	NICU energy meter	kWh
DH	8	Shunt pump status	On/Off
DH	9	Primary pump A status	On/Off
DH	10	Primary pump B status	On/Off
DH	11	Theatre pump A status	On/Off
DH	12	Theatre pump B status	On/Off
DH	13	NICU pump A status	On/Off
DH	14	NICU pump B status	On/Off
DH	15	Boiler fault	On/Off
DH	16	Outside frost	On/Off
AH	17	Spare	On/Off
AH	18	Spare	On/Off
AH	19	Spare	On/Off
DH	20	DoorCurtainP1Enable	On/Off
DH	21	DoorCurtainP2Enable	On/Off
DH	22	DoorCurtainP1Run	On/Off
DH	23	DoorCurtainP2Run	On/Off
DH	24	DoorCurtainsFault	On/Off

O/S 1-8 MCC1 Boiler House

AH	1	LPHW Flow Temperature	°C
AH	2	LPHW Return Temperature	°C
AH	3	Outside Temperature	°C
AH	4	NICU Flow Temperature	°C
AH	5	NICU Return Temperature	°C
AH	6	PU Water Heat Meter	Pulses
DH	7	Boiler 2 Common Fault	Fault/Normal
DH	8	Boiler 3 Common Fault	Fault/Normal
DH	9	Boiler 1 Common Fault	Fault/Normal
DH	10	Primary Header P1 Fault Status	Fault/Normal
DH	11	Primary Header P2 Fault Status	Fault/Normal

DH	12	NICU Heating P1 Fault Status	Fault/Normal
DH	13	NICU Heating P2 Fault Status	Fault/Normal
DH	14	Boiler 2 Enable	On/Off
DH	15	Boiler 3 Enable	On/Off
DH	16	Boiler House UPS 1 Fault	Fault/Normal
DH	17	Boiler 1 Enable	On/Off
DH	18	Primary Header Pump 1 Enable	On/Off
DH	19	Primary Header Pump 2 Enable	On/Off
DH	20	NICU Heating Pump 1 Enable	On/Off
DH	21	NICU Heating Pump 2 Enable	On/Off
DH	22	Boiler House UPS 2 Fault	Fault/Normal
DH	23	Immersion Frost	Frost/Normal
AH	24	Boiler 3 Control 0-10vdc Signal	%

O/S 1-9 MCC1 Boiler House - Extension

AH	1	2021 Extension Circuit Flow Temp	°C
AH	2	2021 Extension Circuit Return Temp	°C
DH	3	Pump A Run Status	On/Off
DH	4	Pump B Run Status	On/Off
AH	17	Pumps Enable	%
AH	18	18 Spare	%
DH	19	Pump A Fault Status	On/Off
DH	20	Pump B Fault Status	On/Off

O/S 1-10 MCC1 Boiler House

AH	1	Pump Set 3 Flow Temp	°C
AH	2	Pump Set 4 Flow Temp	°C
AH	3	Pump Set 5 Flow Temp	°C
AH	4	Pump Set 1 Return Temp	°C
AH	5	Pump Set 2 Return Temp	°C
AH	6	Pump Set 3 Return Temp	°C
AH	7	Pump Set 4 Return Temp	°C
AH	8	Pump Set 5 Return Temp	°C
AH	17	Spare	
AH	18	Spare	
AH	19	Spare	
AH	20	Spare	
AH	21	Spare	
AH	22	Spare	
AH	23	Spare	
AH	24	Spare	

O/S 2-1 Operating Theatre

AH	1	Supply Air Temperature	
AH	2	Theatre 1 Temperature	
AH	3	Theatre 1 Temperature SP	°C

AH	4	Theatre 2 Temperature	
AH	5	Theatre 2 Temperature SP	°C
AH	6	Recovery Room Temp	
AH	9	Spare Uninput 9	
AH	10	Spare Uninput 10	
AH	11	Spare Uninput 11	
DH	12	Hum Control From T1	
DH	13	Hum Control From T2	
AH	14	Spare 14	
DH	14	SRM5 Enables	On/Off
AH	15	Humidifier Signal	
DH	15	Spare 15	On/Off
AH	16	Recovery Valve	%
DH	16	Spare 16	On/Off
AH	17	T2 Heating Valve	%
AH	18	T1 Heating Valve	%
AH	19	AHU Cooling Valve	
AH	20	AHU Pre-heat Valve	
AH	21	AHU On/Off	
AH	22	CW Pumps Enabled	
DH	23	Duty CW Pump	
DH	24	Common Alarm Lamp	

O/S 2-2

Operating Theatre

AH	1	Supply Air Humidity	%
AH	2	Theatre 1 Humidity	%rh
AH	3	Theatre 1 Humidity SP	°C
AH	4	Theatre 2 Humidity	%rh
AH	5	Theatre 2 Humidity SP	°C
AH	6	Spare Input 6	°C
DH	7	Supply Fan Low Speed Run	On/Off
DH	8	Supply Fan High Speed Run	On/Off
DH	9	Return Fan Low Speed Run	On/Off
DH	10	Return Fan High Speed Run	On/Off
DH	11	General Extract Fan Run	On/Off
DH	12	Chilled Water Pump 1 Run	On/Off
DH	13	Chilled Water Pump 2 Run	On/Off
DH	14	Supply Fan Low Speed Trip	On/Off
DH	15	Supply Fan High Speed Trip	On/Off
DH	16	Return Fan Low Speed Trip	On/Off
DH	17	Return Fan High Speed Trip	On/Off
DH	18	General Extract Fan Trip	On/Off
DH	19	Chilled Water Pump 1&2 Trip	On/Off
DH	20	Supply Fan Airflow	On/Off
DH	21	Return Fan Air flow	On/Off
DH	22	AHU Duct Frost Trip	Trip/Normal

DH	23	Panel Filter Dirty	Alarm/Normal
DH	24	Bag Filter Dirty	Alarm/Normal

O/S 2-3 Roof Ventilation

AH	1	Supply Air Temperature	°C
AH	2	Room Temperature Sensor 1	°C
AH	3	Room Temperature Sensor 2	°C
DH	4	Supply Fan Air Flow	Flow
DH	5	SAF Trip	On/Off
DH	6	Duct Freeze	Trip/Normal
DH	7	Panel Filter	Alarm/Normal
DH	8	Bag Filter	Alarm/Normal
DH	9	SAF Enable	On/Off
DH	10	EF 1 Enable	On/Off
DH	11	EF 1 Duty Select	On/Off
DH	12	EF 2 Enable	On/Off
DH	13	EF 3 Enable	On/Off
DH	14	EF 3 Duty Select	On/Off
AH	15	AHU Heating	%
AH	16	Spare 16	°C
DH	17	EF 1 Airflow	Flow
DH	18	EF 1 Common Trip	Trip
DH	19	EF 2 Airflow	Flow
DH	20	EF 2 Trip	Trip
DH	21	EF 3 Airflow	Flow
DH	22	EF 3 Common Trip	Trip
AH	23		
AH	24		

O/S 3-1 Isolation Room

AH	1	Supply Air Temperature	°C
AH	2	Room 1 Air Temperature	°C
AH	3	Outside Air Temperature	°C
AH	4	Room 2 Temperature	°C
AH	5	Remote SP From Trend	%
AH	6	AHU SA Low Limit From Trend	%
AH	7	AHU VSD Speed Select From Trend	%
DH	8	Supply Air Flow	On/Off
AH	17	AHU Enable/Heater enable	°C
AH	18	DX Cooling Enable	°C
DH	19	Bag Filter Dirty	Alarm/Normal
DH	20	Panel Filter Dirty	Alarm/Normal
AH	21	AHU VSD Speed	%
AH	22	Heating Control	%
AH	23	Avg Temp to Trend	°C
AH	24	Status Signal to Trend	°C

O/S 4-1 AHU 1 MCC 5, 6 & 7 Neo Natal AHU's

AH	1	Supply Air Temperature	°C
AH	2	Room Air Temperature	°C
DH	3	AHU Frost Stat	Frost/Normal
DH	4	Supply Fan Airflow	Flow
DH	5	Panel Filter	Trip
AH	6	Spare 6	°C
AH	7	Spare 7	°C
AH	8	Spare 8	°C
AH	9	Spare 9	%
AH	10	Spare 10	%
AH	11	Spare 11	%
AH	12	Spare 12	%
AH	13	Spare 13	%
AH	14	Spare 14	%
AH	15	Spare 15	%
AH	16	Spare 16	%
DH	17	AHU Enable - 17	On/Off
AH	18	AHU Heating Valve	%
AH	19	Spare 19	
AH	20	Spare 20	
AH	21	Spare 21	
AH	22	Spare 22	
AH	23	Spare 23	
AH	24	Spare 24	

O/S 4-2 AHU 2 MCC 5, 6 & 7 Neo Natal AHU's

AH	1	Supply Air Temperature	°C
AH	2	Room Air Temperature	°C
DH	3	AHU Frost Stat	Frost/Normal
DH	4	Supply Fan Airflow	Flow
DH	5	Panel Filter	Trip
DH	6	Bag Filter	Trip
AH	7	Spare 7	°C
AH	8	Spare 8	°C
AH	9	Spare 9	%
AH	10	Spare 10	%
AH	11	Spare 11	%
AH	12	Spare 12	%
AH	13	Spare 13	%
AH	14	Spare 14	%
AH	15	Spare 15	%
AH	16	Spare 16	%
DH	17	AHU Enable	On/Off
DH	18	AHU Fan Select	On/Off

AH	19	AHU Heating Valve	%
AH	20	Spare 20	
AH	21	Spare 21	
AH	22	Spare 22	
AH	23	Spare 23	
AH	24	Spare 24	

O/S 4-3 AHU 3 MCC 5, 6 & 7 Neo Natal AHU's

AH	1	Supply Air Temperature	°C
AH	2	Room Air Temperature	°C
DH	3	AHU Frost Stat	Frost/Normal
DH	4	Supply Fan Airflow	Flow
DH	5	Panel Filter	Trip
DH	6	Bag Filter	Trip
AH	7	Spare 7	°C
AH	8	Spare 8	°C
AH	9	Spare 9	%
AH	10	Spare 10	%
AH	11	Spare 11	%
AH	12	Spare 12	%
AH	13	Spare 13	%
AH	14	Spare 14	%
AH	15	Spare 15	%
AH	16	Spare 16	%
DH	17	AHU Enable	On/Off
DH	18	AHU Fan Select	On/Off
AH	19	AHU Heating Valve	%
AH	20	Spare 20	
AH	21	Spare 21	
AH	22	Spare 22	
AH	23	Spare 23	
AH	24	Spare 24	

O/S 5-1 MCC8 Main Entrance

AH	1	Ahu supply air sensor	°C
AH	2	Ahu extract air sensor	°C
AH	3	Ahu runaround immersion sensor	°C
AH	4	Ahu fresh air sensor	°C
AH	5	Ahusupply air pressure transducer	%
DH	9	Fire relay	On/Off
DH	10	Ahu supply fan fault status	On/Off
DH	11	Ahu electric heater high limit status	On/Off
DH	12	Ahu extract fan fault status	On/Off
DH	13	Ahu runaround pump run status	On/Off
DH	14	Ahu supply air filter status	On/Off
AH	15	Spare 15	

AH	16	Spare 16	
AH	17	Spare 17	
AH	18	Spare 18	
AH	19	Spare 19	
AH	20	AC 0-10Vdc signal	%
AH	21	Electric battery control	%
DH	22	??	On/Off
AH	23	Ahu supply fan speed control	%
AH	24	Ahu extract fan speed control	%

O/S 6-1 Gate Theatre - Boiler House

AH	1	Boiler flow	°C
AH	2	Rad.circuit No.1 flow	°C
AH	3	Rad.circuit No.2 flow	°C
AH	4	Spare 4	
AH	5	Spare 5	
AH	6	Spare 6	
AH	7	Spare 7	
AH	8	Spare 8	
DH	9	Low pressure status	On/Off/Off
DH	10	High pressure status	On/Off/Off
DH	11	Combustion supply fan status	On/Off/Off
DH	12	Combustion extract fan status	On/Off/Off
DH	13	Toilet extract run status	On/Off/Off
DH	14	Ladies toilet extract fan status	On/Off/Off
AH	15	Spare 15	
AH	16	Spare 16	
AH	17	Rad.circuit No.1 valve	%
AH	18	Rad.circuit No.2 valve	%
AH	19	Spare 19	
AH	20	Spare 20	
AH	21	Spare 21	
AH	22	Spare 22	
AH	23	Spare 23	
AH	24	Spare 24	

O/S 7-1 Admin

AH	1	Ahu supply air temp	°C
AH	2	Ahu return air temp	°C
AH	3	Preheat temperature	°C
AH	4	Reheat temperature	°C
AH	5	Spare 5	
AH	6	Spare 6	
AH	7	Spare 7	
AH	8	Spare 8	
DH	9	EF-04 status	On/Off

DH	10	EF-o5 status	On/Off
DH	11	Ahu duct frost status	On/Off
DH	12	Ahu supply fan run status	On/Off
DH	13	Ahu supply fan fault status	On/Off
DH	14	Ahu extract fan run status	On/Off
DH	15	Ahu panel filter status	On/Off
DH	16	Ahu bag filter status	On/Off
AH	17	Spare 17	
AH	18	Spare 18	
AH	19	Spare 19	
AH	20	Spare 20	
AH	21	Spare 21	
AH	22	Spare 22	
AH	23	Spare 23	
AH	24	Spare 24	

O/S 7-2

Admin

AH	1	Hot water high level sensor	°C
AH	2	Hot water low level sensor	°C
AH	3	Hot water return sensor	°C
AH	4	Spare 4	
AH	5	Spare 5	
AH	6	Spare 6	
AH	7	Spare 7	
AH	8	Spare 8	
DH	9	Ahu extract fan fault status	On/Off
DH	10	Hws high limit thermostat status	On/Off
DH	11	Hws primary pump A status	On/Off
DH	12	Hws primary pump B status	On/Off
DH	13	Hws secondary status	On/Off
DH	14	Spare 14	
DH	15	Spare 15	
DH	16	Spare 16	
AH	17	Spare 17	
AH	18	Spare 18	
AH	19	Spare 19	
AH	20	Spare 20	
AH	21	Spare 21	
AH	22	Spare 22	
AH	23	Spare 23	
AH	24	Spare 24	

O/S 7-3

Admin

AH	1	Spare 1	
AH	2	Boiler flow	°C
AH	3	Boiler return	°C

AH	4	Radiator circuit flow	°C
AH	5	Spare 5	
AH	6	Gas pulse	Pulses
AH	7	Spare 7	
AH	8	Spare 8	
DH	9	Boiler shunt pump status	On/Off
DH	10	Radiator pump A status	On/Off
DH	11	Radiator pump B status	On/Off
DH	12	Outside frost status	On/Off
DH	13	Immersion frost status	On/Off
DH	14	Fire alarm status	On/Off
DH	15	Low pressure status	On/Off
DH	16	High pressure status	On/Off
AH	17	R/L1.1	°C
AH	18	R/L 1.2	°C
AH	19	Spare 19	
AH	20	Spare 20	
AH	21	Spare 21	
AH	22	Spare 22	
AH	23	Spare 23	
AH	24	Spare 24	

O/S 8-1

008 NNICA AHU

AH	1	Outside Temperature	°C
AH	2	Outside Humidity	%rh
DH	3	Hepa Filter Status	Fault/Normal
DH	4	Airflow Status	On/Off
AH	5	Isolation Room 2 Temp	°C
AH	6	Heating Off Coil Temp	°C
AH	7	Cooling Off Coil Temp	°C
AH	8	Isolation Room 4 Temp	°C
AH	9	Supply Air Temperature	°C
AH	10	Supply Air Humidity	%rh
DH	11	Fire Alarm Status	Trip/Normal
DH	12	Panel Filter Status	On/Off
DH	13	Bag Filter Status	On/Off
DH	14	AHU Frost Status	Frost/Normal
DH	15	S.A Damper Status	Open
DH	16	SAF Fault Status	H. Limit
AH	17	Pre-Heat Actuator	%
AH	18	Heating Actuator	%
AH	19	19 Spare	%
AH	20	Supply Fan Speed	%
AH	21	Humidity Control Signal	%
DH	22	Supply Fan Enable	On/Off
DH	23	Humidifier Enable	On/Off

DH	24	SAP Pressure Fault	On/Off
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O/S 8-2

008 NNICA AHU

AH	1	Sub-Dist. Board Meter 1	Pulses
AH	2	Sub-Dist. Board Meter 2	Pulses
AH	3	AHU MCC Meter	Pulses
AH	4	Spare Meter 1	Pulses
AH	5	Spare Meter 2	Pulses
AH	6	Spare Meter 3	Pulses
AH	7	Spare Meter 4	Pulses
DH	8	IPS Unit 1 Fault Status	On/Off
DH	9	IPS Unit 2 Fault Status	On/Off
DH	10	Spare 10	On/Off
DH	11	Humidifier Run Status	On/Off
DH	12	Humidifier Fault Status	On/Off
DH	13	DX Unit 2 Run Status	On/Off
DH	14	DX Unit 2 Fault Status	On/Off
DH	15	DX Unit 4 Run Status	On/Off
DH	16	DX Unit 4 Fault Status	On/Off
DH	17	DX Unit 2 Enable	On/Off
DH	18	DX Unit 4 Enable	On/Off
AH	19	DX Unit 2 Control Signal	%
AH	20	DX Unit 4 Control Signal	%
DH	21	Duct Humidistat High	On/Off
AH	22	Spare 22	%
AH	23	Spare 23	%
AH	24	Spare 24	%

O/S 9-1

009 NNICU 1&2

AH	1	AHU 1 Supply Air Temperature	°C
AH	2	AHU 1 Supply Air Humidity	%rh
AH	3	AHU 1 LPHW Coil Flow Temperature	°C
AH	4	AHU 1 Outside Air Temperature	°C
AH	5	AHU 1 Heat Recovery Off-Coil Temperature	°C
AH	6	AHU 1 Heating Coil Off-Coil Temperature	°C
AH	7	AHU 1 Cooling Coil Off-Coil Temperature	°C
DH	8	AHU 1 Supply Air Press Switch High	High
DH	9	AHU 1 Panel Filter Status	Alarm/Normal
DH	10	AHU 1 Bag Filter Status	Alarm/Normal
DH	11	AHU 1 Hepa Filter Status	Alarm/Normal
DH	12	AHU 1 Frost Stat	Frost/Normal
DH	13	AHU 1 SA Damper Status	Open
DH	14	AHU 1 SAF Fault Status	Fault/Normal
DH	15	AHU 1 DX Unit 1 Fault	Fault/Normal
DH	16	AHU 1 DX Unit 2 Fault	Fault/Normal
AH	17	AHU 1 Frost Coil Heating Valve	%

AH	18	AHU 1 Heating Coil Valve	%
AH	19	AHU 1 Supply Fan Speed	%
AH	20	AHU 1 DX Cooling 1 Control Signal	%
AH	21	AHU 1 DX Cooling 2 Control Signal	%
AH	22	AHU 1 Supply Fan Enable/AHU 1 DX Cooling 1 Enable	%
AH	23	AHU 1 DX Cooling 2 Enable/Spare	%
DH	24	AHU 1 Airflow Switch	Flow

O/S 9-2 009 NNICU 1&2

AH	1	AHU 2 Supply Air Temperature	°C
AH	2	AHU 2 Supply Air Humidity	%rh
DH	3	Damper Control Panel Fault	Fault/Normal
AH	4	AHU 2 Outside Air Temperature	°C
AH	5	AHU 2 Heat Recovery Off-Coil Temperature	°C
AH	6	AHU 2 Heating Coil Off-Coil Temperature	°C
AH	7	AHU 2 Cooling Coil Off-Coil Temperature	°C
DH	8	AHU 2 Supply Air Press Switch High	Flow
DH	9	AHU 2 Panel Filter Status	Fault/Normal
DH	10	AHU 2 Bag Filter Status	Fault/Normal
DH	11	AHU 2 Hepa Filter Status	Fault/Normal
DH	12	AHU 2 Frost Stat	Frost/Normal
DH	13	AHU 2 SA Damper Status	Open
DH	14	AHU 2 SAF Fault Status	Fault/Normal
DH	15	AHU 2 DX Unit 3 Fault	Fault/Normal
DH	16	16 Spare	Fault/Normal
AH	17	AHU 2 Frost Coil Heating Valve	%
AH	18	AHU 2 Heating Coil Valve	%
AH	19	AHU 2 Supply Fan Speed	%
AH	20	AHU 2 DX Cooling 1 Control Signal	%
AH	21	21 Spare	%
AH	22	AHU 2 Supply Fan Enable/AHU 2 DX Cooling 3 Enable	%
AH	23	23 Spare	%
DH	24	AHU 2 Airflow Switch	Flow

O/S 9-3 009 NNICU 1&2

AH	1	Zone 1 Room Temperature	°C
AH	2	Zone 1 Room Setpoint Adjust	°C
AH	3	Zone 2 Room Temperature	°C
AH	4	Zone 2 Room Setpoint Adjust	°C
AH	5	Zone 3 Room Temperature	°C
AH	6	Zone 3 Room Setpoint Adjust	°C
AH	7	Zone 4 Room Temperature	°C
AH	8	Zone 4 Setpoint Adjust	°C
AH	17	Zone 1 Reheat Heating Valve	%
AH	18	Zone 2 Reheat Heating Valve	%
AH	19	Zone 3 Reheat Heating Valve	%

AH	20	Zone 4 Reheat Heating Valve	%
DH	21	(A) Leak Detection No 1	Alarm/Normal
DH	22	(B) Leak Detection No 2	Alarm/Normal
DH	23	Fire Smoke Damper Panel Status	Trip/Normal
AH	24	Spare 24	

O/S 9-4 009 NNICU 1&2

AH	1	Zone 5 Room Temperature	°C
AH	2	Zone 5 Room Setpoint Adjust	°C
AH	3	Zone 6 Room Temperature	°C
AH	4	Zone 6 Room Setpoint Adjust	°C
AH	5	Zone 7 Room Temperature	°C
AH	6	Zone 7 Room Setpoint Adjust	°C
AH	7	Zone 8 Room Temperature	°C
AH	8	Zone 8 Setpoint Adjust	°C
AH	17	Zone 5 Reheat Heating Valve	%
AH	18	Zone 6 Reheat Heating Valve	%
AH	19	Zone 7 Reheat Heating Valve	%
AH	20	Zone 8 Reheat Heating Valve	%
AH	21	Spare 21	
AH	22	Spare 22	
AH	23	Spare 23	
AH	24	Spare 24	

O/S 9-5 009 NNICU 1&2

AH	1	Zone 9 Room Temperature	°C
AH	2	Zone 9 Room Setpoint Adjust	°C
AH	3	Zone 10 Room Temperature	°C
AH	4	Zone 10 Room Setpoint Adjust	°C
AH	5	Zone 11 Room Temperature	°C
AH	6	Zone 11 Room Setpoint Adjust	°C
AH	7	Zone 12 Room Temperature	°C
AH	8	Zone 12 Setpoint Adjust	°C
AH	17	Zone 9 Reheat Heating Valve	%
AH	18	Zone 10 Reheat Heating Valve	%
AH	19	Zone 11 Reheat Heating Valve	%
AH	20	Zone 12 Reheat Heating Valve	%
AH	21	Spare 21	
AH	22	Spare 22	
AH	23	Spare 23	
AH	24	Spare 24	

O/S 9-6 009 NNICU 1&2

AH	1	Zone 1 Supply Temperature	°C
AH	2	Zone 2 Supply Temperature	°C
AH	3	Zone 3 Supply Temperature	°C

AH	4	Zone 4 Supply Temperature	°C
AH	5	Zone 5 Supply Temperature	°C
AH	6	Zone 6 Supply Temperature	°C
AH	7	Zone 7 Supply Temperature	°C
AH	8	Zone 8 Supply Temperature	°C
DH	17	Reheat 5 Leak Detection	On/Off
DH	18	Reheat 6 Leak Detection	On/Off
DH	19	Reheat 7 Leak Detection	On/Off
DH	20	Reheat 8 Leak Detection	On/Off
DH	21	Reheat 9 Leak Detection	On/Off
DH	22	Reheat 10 Leak Detection	On/Off
AH	23	Spare 23	
AH	24	Spare 24	

O/S 9-7 009 NNICU 1&2

AH	1	Zone 9 Supply Temperature	°C
AH	2	Zone 10 Supply Temperature	°C
AH	3	Zone 11 Supply Temperature	°C
AH	4	Zone 12 Supply Temperature	°C
AH	5	UPS Sw Room Room Temperature	°C
AH	6	UPS Sw Room Room Humidity	%rh
AH	7	Hydrogen Sensor	%
DH	8	Main NICU EF-01 Fault Status	Fault/Normal
AH	17	Main NICU EF-01 Enable/EF-01 Fire Disable	%
AH	18	Main NICU EF-01 Control Signal	%
AH	19	Single Cot Wing NICU EF-02 Enable/Fire Disable	%
AH	20	Single Cot Wing NICU EF-02 Control Signal	%
AH	21	UPS Switch Room EF-03 Enable/Spare	%
DH	22	Main NICU EF-02 Fault Status	On/Off
DH	23	UPS Sw Room EF-03 Run Status	On/Off
AH	24	Spare 24	

O/S 9-8 009 NNICU 1&2

AH	1	IPS Unit 1 Fault Signal	%
AH	2	IPS Unit 2 Fault Signal	%
AH	3	IPS Unit 3 Fault Signal	%
AH	4	IPS Unit 4 Fault Signal	%
AH	5	IPS Unit 5 Fault Signal	%
AH	6	IPS Unit 6 Fault Signal	%
DH	7	IPS Unit 1 Fault Status	Fault/Normal
DH	8	IPS Unit 2 Fault Status	Fault/Normal
DH	17	IPS Unit 3 Fault Status	Fault/Normal
DH	18	IPS Unit 4 Fault Status	Fault/Normal
DH	19	IPS Unit 5 Fault Status	Fault/Normal
DH	20	IPS Unit 6 Fault Status	Fault/Normal
DH	21	IPS Unit 1 Run Status	On/Off

DH	22	IPS Unit 2 Run Status	On/Off
DH	23	IPS Unit 3 Run Status	On/Off
DH	24	IPS Unit 4 Run Status	On/Off

O/S 9-9 009 NNICU 1&2

DH	1	IPS Unit 5 Run Status	On/Off
DH	2	IPS Unit 6 Run Status	On/Off
DH	3	EDS Insulation Fault Monitoring System 1	Fault/Normal
DH	4	EDS Insulation Fault Monitoring System 2	Fault/Normal
DH	5	EDS Insulation Fault Monitoring System 3	Fault/Normal
DH	6	Fire Smoke Damper Panel Status	Trip/Normal
DH	7	NNICU MCC Panel Fire Alarm	Trip/Normal
DH	8	Medical Gases Fault Status	Alarm/Normal
DH	9	UPS Unit 1 Status	On/Off
DH	10	UPS Unit 1 Overload	Alarm/Normal
DH	11	UPS Unit 1 Overload Shutdown	Alarm/Normal
DH	12	UPS Unit 1 Emergency Off	Alarm/Normal
DH	13	UPS Unit 1 Equip Over Temperature	Alarm/Normal
DH	14	UPS Unit 1 Low Battery	Alarm/Normal
DH	15	UPS Unit 1 Battery Discharge	Alarm/Normal
DH	16	UPS Unit 1 Input Power Failure	Alarm/Normal

O/S 9-10 009 NNICU 1&2

DH	1	UPS Unit 2 Status	On/Off
DH	2	UPS Unit 2 Overload	Alarm/Normal
DH	3	UPS Unit 2 Overload Shutdown	Alarm/Normal
DH	4	UPS Unit 2 Emergency Off	Alarm/Normal
DH	5	UPS Unit 2 Equip Over Temperature	Alarm/Normal
DH	6	UPS Unit 2 Low Battery	Alarm/Normal
DH	7	UPS Unit 2 Battery Discharge	Alarm/Normal
DH	8	UPS Unit 2 Input Power Failure	Alarm/Normal
DH	9	UPS Unit 3 Status	On/Off
DH	10	UPS Unit 3 Overload	Alarm/Normal
DH	11	UPS Unit 3 Overload Shutdown	Alarm/Normal
DH	12	UPS Unit 3 Emergency Off	Alarm/Normal
DH	13	UPS Unit 3 Equip Over Temperature	Alarm/Normal
DH	14	UPS Unit 3 Low Battery	Alarm/Normal
DH	15	UPS Unit 3 Battery Discharge	Alarm/Normal
DH	16	UPS Unit 3 Input Power Failure	Alarm/Normal

O/S 10-1 New Extension MCC2 Roof

AH	1	AHU 3 Supply Air Temperature	°C
AH	2	AHU 3 Supply Air Humidity	%rh
AH	3	AHU 3 Cooling On Coil Temperature	°C
AH	4	AHU 3 Cooling Off Coil Temperature	°C

AH	5	AHU 3 Supply Air Measuring Device	Pa
AH	6	MCC 2 Energy Meter	kWh
DH	7	Fire Alarm I/O Relay Status	Trip/Normal
DH	8	Spare 8	Flow
DH	9	AHU 3 Bag Filter Status	Fault/Normal
DH	10	AHU 3 Intake Damper Status	Open
DH	11	AHU 3 Discharge Damper Status	Open
DH	12	AHU 3 Frost Stat	Frost/Normal
DH	13	AHU 3 Duct Humidistat Status	Trip
DH	14	AHU 3 Duct Pressure Switch Status	Flow
DH	15	AHU 3 Supply Fan 1 Fault	Fault/Normal
DH	16	AHU 3 Supply Fan 2 Fault	Fault/Normal
AH	17	AHU 3 S/F 1 & S/F 2 Enable	%
AH	18	AHU 3 Heating Coil Valve	%
AH	19	AHU 3 Supply Fan 1 Speed	%
AH	20	AHU 3 Supply Fan 2 Speed	%
AH	21	AHU 3 DX Cooling Stage 1 Control Signal	%
AH	22	AHU 3 DX Cooling Stage 2 Control Signal	%
DH	23	AHU 3 DX 1 Condenser Fault	Alarm/Normal
DH	24	Water Detection Controller 1 Leak Alarm	Alarm/Normal

O/S 10-

2

New Extension MCC2 Roof

AH	1	Exhaust Fan EF-03 Airflow Measuring Device	Pa
AH	2	Spare 2	°C
AH	3	Room 10 Temperature Sensor	°C
AH	4	Room 10 Duct Temperature Sensor	°C
AH	5	Room 10 Temperature Adjust	Resistance
AH	6	Room 11 Temperature Sensor	°C
AH	7	Room 11 Duct Temperature Sensor	°C
AH	8	Room 11 Temperature Adjust	Resistance
DH	9	EF-03 Fault Status	Fault/Normal
DH	10	Nitrogen Extract Fan Fault	Fault/Normal
DH	11	Spare 11	On/Off
DH	12	Spare 12	On/Off
DH	13	Spare 13	On/Off
DH	14	Spare 14	On/Off
DH	15	Spare 15	On/Off
DH	16	Spare 16	On/Off
AH	17	EF-03 & Nitrogen EF Enable	%
AH	18	EF-03 Extract Fan Speed Control	%
AH	19	Room 10 Reheat Valve	%
AH	20	Room 11 Reheat Valve	%
AH	21	Room 9 Reheat Valve	%
AH	22	Room 12 Reheat Valve	%
AH	23	Room 13 Reheat Valve	%
AH	24	Spare 24	%

O/S 10-
3

New Extension MCC2 Roof

AH	1	Room 1 Temperature Sensor	°C
AH	2	Room 1 Temperature Adjust	Resistance
AH	3	Room 2 Temperature Sensor	°C
AH	4	Room 2 Temperature Adjust	Resistance
AH	5	Room 3 Temperature Sensor	°C
AH	6	Room 3 Temperature Adjust	Resistance
AH	7	Room 4 Temperature Sensor	°C
AH	8	Room 4 Temperature Adjust	Resistance
AH	17	Room 1 Rehat Valve	%
AH	18	Room 2 Rehat Valve	%
AH	19	Room 3 Rehat Valve	%
AH	20	Room 4 Rehat Valve	%
AH	21	Spare 21	%
AH	22	Spare 22	%
AH	23	Spare 23	%
AH	24	Spare 24	%

O/S 10-
4

New Extension MCC2 Roof

AH	1	Room 5 Temperature Sensor	°C
AH	2	Room 5 Temperature Adjust	Resistance
AH	3	Room 6 Temperature Sensor	°C
AH	4	Room 6 Temperature Adjust	Resistance
AH	5	Room 7 Temperature Sensor	°C
AH	6	Room 7 Temperature Adjust	Resistance
AH	7	Room 8 Temperature Sensor	°C
AH	8	Room 8 Temperature Adjust	Resistance
AH	17	Room 5 Rehat Valve	%
AH	18	Room 6 Rehat Valve	%
AH	19	Room 7 Rehat Valve	%
AH	20	Room 8 Rehat Valve	%
AH	21	Spare 21	%
AH	22	Spare 22	%
AH	23	Spare 23	%
AH	24	Spare 24	%

O/S 10-
5

New Extension MCC2 Roof

DH	1	Spare 1	On/Off
DH	2	Spare 2	On/Off
AH	3	Room 1 Duct Temperature Sensor	°C
AH	4	Room 2 Duct Temperature Sensor	°C
AH	5	Room 3 Duct Temperature Sensor	°C
AH	6	Room 4 Duct Temperature Adjust	°C

AH	7	Room 5 Duct Temperature Sensor	%
AH	8	Room 6 Duct Temperature Sensor	°C
DH	17	IPS Unit 1 Status	Alarm/Normal
DH	18	IPS Unit 1 Overload	Alarm/Normal
DH	19	UPS Unit 1 Overload Shutdown	Alarm/Normal
DH	20	UPS Unit 1 Bypass Switch Status	Alarm/Normal
DH	21	UPS Unit 1 Emergency Off	Alarm/Normal
DH	22	UPS Unit 1 Equipment Over Temperature	Alarm/Normal
DH	23	UPS Unit 1 Low Battery	Alarm/Normal
DH	24	UPS Unit 1 Battery Discharge	Alarm/Normal

O/S 10-
6

New Extension MCC2 Roof

AH	1	Room 7 Duct Temperature Sensor	°C
AH	2	Room 8 Duct Temperature Sensor	°C
AH	3	Room 9 Duct Temperature Sensor	°C
AH	4	Room 12 Duct Temperature Sensor	°C
AH	5	Room 13 Duct Temperature Sensor	°C
AH	6	Spare 6	°C
AH	7	Spare 7	On/Off
AH	8	Spare 8	°C
DH	17	IPS Unit 1 Input Power Failure	Alarm/Normal
DH	18	IPS Unit 2 Status	Alarm/Normal
DH	19	IPS Unit 2 Overload	Alarm/Normal
DH	20	UPS Unit 2 Overload Shutdown	Alarm/Normal
DH	21	UPS Unit 2 Bypass Switch Status	Alarm/Normal
DH	22	UPS Unit 2 Emergency Off	Alarm/Normal
DH	23	UPS Unit 2 Equipment Over Temperature	Alarm/Normal
DH	24	UPS Unit 2 Low Battery	Alarm/Normal

O/S 10-
7

New Extension MCC2 Roof

AH	1	Room 9 Temperature Sensor	°C
AH	2	Room 9 Temperature Adjust	°C
AH	3	Room 12 Temperature Sensor	°C
AH	4	Room 12 Temperature Adjust	Resistance
AH	5	Room 13 Temperature Sensor	°C
AH	6	Electrical Rooftop Room Temperature	%
AH	7	Electrical Rooftop Room Humidity	%
AH	8	Room 13 Temperature Adjust	Resistance
DH	17	UPS Unit 2 Battery Discharge	Alarm/Normal
DH	18	IPS Unit 2 Input Power Failure	Alarm/Normal
DH	19	Room 5 IPS Unit Fault	Alarm/Normal
DH	20	Room 5 IPS Unit Status	On/Off
DH	21	EDS Insulation System 1 Fault Status	Alarm/Normal
DH	22	Leak Detection Panel Status	Alarm/Normal
DH	23	Fire/Smoke Damper Control Panel Status	Alarm/Normal

DH	24	AHU 3 DX 2 Condenser Fault	Fault/Normal
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O/S 11-

1 AHU 1 New Extension MCC1 Roof

AH	1	AHU 01 Pre-Heat Offcoil Temperature	°C
AH	2	AHU 01 Pre-Heat Offcoil Humidity	%rh
AH	3	AHU 01 Theatre Room Temperature	°C
AH	4	AHU 01 Theatre Room Humidity	%rh
AH	5	AHU 01 Cooling Oncoil Temperature	°C
AH	6	AHU 01 Cooling Offcoil Temperature	°C
AH	7	AHU 01 Supply Air Temperature	°C
AH	8	AHU 01 Supply Air Humidity	%rh
AH	9	AHU 01 Extract Air Flow Measuring Device	Pa
AH	10	AHU 01 Extract Fan Speed Control	%
DH	11	AHU 01 Extract Fan Fault	Fault/Normal
DH	12	AHU 01 Duct Frost Stat	Frost/Normal
DH	13	AHU 01 Duct Humidistat Status	Trip
DH	14	AHU 01 Duct Pressure Switch Status	Flow
DH	15	AHU 01 Supply Fan Inverter Fault	Fault/Normal
DH	16	AHU 01 Intake Damper Status	Open
AH	17	AHU 01 Supply/Extract Fan Enable	%
AH	18	AHU 01 Pre-Heat Coil Control Valve	%
AH	19	AHU 01 Heating Coil Control Valve	%
AH	20	AHU 01 Supply Fan Speed Control	%
AH	21	AHU 01 DX Cooling Stage 1 Control	%
AH	22	AHU 01 DX Cooling Stage 2 Control	%
AH	23	AHU 01 Supply Air Flow Measuring Device	Pa
DH	24	AHU 01 Discharge Damper Status	Open

O/S 11-

2 AHU 2 New Extension MCC1 Roof

AH	1	AHU 02 Pre-Heat Offcoil Temperature	°C
AH	2	AHU 02 Pre-Heat Offcoil Humidity	%rh
AH	3	AHU 02 Theatre Room Temperature	°C
AH	4	AHU 02 Theatre Room Humidity	%rh
AH	5	AHU 02 Cooling Oncoil Temperature	°C
AH	6	AHU 02 Cooling Offcoil Temperature	°C
AH	7	AHU 02 Supply Air Temperature	°C
AH	8	AHU 02 Supply Air Humidity	%rh
AH	9	AHU 02 Extract Air Flow Measuring Device	Pa
AH	10	AHU 02 Extract Fan Speed Control	%
DH	11	AHU 02 Extract Fan Fault	Fault/Normal
DH	12	AHU 02 Duct Frost Stat	Frost/Normal
DH	13	AHU 02 Duct Humidistat Status	Trip
DH	14	AHU 02 Duct Pressure Switch Status	Flow
DH	15	AHU 02 Supply Fan Inverter Fault	Fault/Normal
DH	16	AHU 02 Intake Damper Status	Open

AH	17	AHU 02 Supply/Extract Fan Enable	%
AH	18	AHU 02 Pre-Heat Coil Control Valve	%
AH	19	AHU 02 Heating Coil Control Valve	%
AH	20	AHU 02 Supply Fan Speed Control	%
AH	21	AHU 02 DX Cooling Stage 1 Control	%
AH	22	AHU 02 DX Cooling Stage 2 Control	%
AH	23	AHU 02 Supply Air Flow Measuring Device	Pa
DH	24	AHU 02 Discharge Damper Status	Open

O/S 11-

3

AHU 4

New Extension MCC1 Roof

AH	1	AHU 04 Pre-Heat Offcoil Temperature	°C
AH	2	AHU 04 Pre-Heat Offcoil Humidity	%rh
DH	3	AHU 04 R/F Discharge Damper Status	Open
DH	4	AHU 04 Extract Filter Status	Alarm/Normal
AH	5	AHU 04 Return Fan Extract Temperature	°C
AH	6	AHU 04 Cooling Offcoil Temperature	°C
AH	7	AHU 04 Supply Air Temperature	°C
AH	8	AHU 04 Supply Air Humidity	%rh
AH	9	AHU 04 Extract Air Flow Measuring Device	Pa
AH	10	AHU 04 Extract Fan Speed Control	%
DH	11	AHU 04 Extract Fan Fault	Fault/Normal
DH	12	AHU 04 Duct Frost Stat	Frost/Normal
DH	13	AHU 04 Duct Humidistat Status	Trip
DH	14	AHU 04 Duct Pressure Switch Status	Flow
DH	15	AHU 04 Supply Fan Inverter Fault	Fault/Normal
DH	16	AHU 04 Intake Damper Status	Open
AH	17	AHU 04 Supply/Extract Fan Enable	%
AH	18	AHU 04 Run AAround Pump & EF04 Enable	%
AH	19	AHU 04 Heating Coil Control Valve	%
AH	20	AHU 04 Supply Fan Speed Control	%
AH	21	AHU 04 DX Cooling Stage 1 Control	%
AH	22	AHU 04 DX Cooling Stage 2 Control	%
AH	23	AHU 04 Supply Air Flow Measuring Device	Pa
DH	24	AHU 04 Discharge Damper Status	Open

O/S 11-

4

New Extension MCC1 Roof

DH	1	AHU 01 Leak Detection Panel Sensor	Alarm/Normal
DH	2	AHU 02 Leak Detection Panel Sensor	Alarm/Normal
DH	3	AHU 04 Leak Detection Panel Sensor	Alarm/Normal
DH	4	AHU 01 DX1 Fault	Fault/Normal
DH	5	AHU 01 DX2 Fault	Alarm/Normal
DH	6	AHU 02 DX1 Fault	Fault/Normal
DH	7	AHU 02 DX2 Fault	Fault/Normal
DH	8	AHU 04 DX1 Fault	Fault/Normal
DH	9	Extract Fan EF-04 Fault	Fault/Normal

DH	10	AHU 01 Fresh Air Intake Filter	Fault/Normal
DH	11	AHU 02 Fresh Air Intake Filter	Fault/Normal
DH	12	AHU 01 Supply Air HEPA Filter	Fault/Normal
DH	13	AHU 02 Supply Air HEPA Filter	Fault/Normal
DH	14	AHU 04 Fresh Air Intake Filter	Fault/Normal
DH	15	AHU 04 Supply Air HEPA Filter	Fault/Normal
DH	16	AHU 04 DX2 Fault	Fault/Normal
AH	17	Extract Fan EF-04 Speed Control	%
DH	18	EDS Insulation Fault Monitoring System 1	Fault/Normal
DH	19	EDS Insulation Fault Monitoring System 2	Fault/Normal
DH	20	EDS Insulation Fault Monitoring System 3	Fault/Normal
DH	21	Static Inverter Status	Fault/Normal
DH	22	Static Inverter Battery Charger Status	Fault/Normal
DH	23	Spare Uninput Point 23	Fault/Normal
DH	24	AHU 04 H/R Pump Status	On/Off

O/S 11-

5

New Extension MCC1 Roof

AH	1	Temperature Sensor Room 1	°C
AH	2	Temperature Sensor Room 2	°C
AH	3	Temperature Sensor Room 3	°C
AH	4	Temperature Sensor Room 4	°C
AH	5	Temperature Sensor Room 5	°C
AH	6	Temperature Sensor Room 6	°C
AH	7	Temperature Sensor Room 7	°C
AH	8	Temperature Sensor Room 8	°C
AH	17	Re-Heat Battery Control Valve B Room 1	%
AH	18	Re-Heat Battery Control Valve Room 2	%
AH	19	Re-Heat Battery Control Valve Room 3	%
AH	20	Re-Heat Battery Control Valve Room 4	%
AH	21	Re-Heat Battery Control Valve Room 5	%
AH	22	Re-Heat Battery Control Valve Room 6	%
AH	23	Re-Heat Battery Control Valve Room 7	%
AH	24	Re-Heat Battery Control Valve A Room 1	%

O/S 11-

6

New Extension MCC1 Roof

AH	1	Temperature Sensor Room 9	°C
AH	2	Temperature Sensor Room 10	°C
AH	3	Temperature Sensor Room 11	°C
AH	4	Temperature Sensor Room 12	°C
AH	5	Temperature Sensor Room 13	°C
AH	6	Temperature Sensor Room 14	°C
AH	7	Temperature Sensor Room 15	°C
AH	17	Re-Heat Battery Control Valve Room 9	%
AH	18	Re-Heat Battery Control Valve Room 10	%
AH	19	Re-Heat Battery Control Valve Room 11	%

AH	20	Re-Heat Battery Control Valve Room 12	%
AH	21	Re-Heat Battery Control Valve Room 13	%
AH	22	Re-Heat Battery Control Valve Room 14	%
AH	23	Re-Heat Battery Control Valve Room 15	%

O/S 11-

7

New Extension MCC1 Roof

AH	1	Room Duct Temperature Sensor No.1	°C
AH	2	Room Duct Temperature Sensor No.2	°C
AH	3	Room Duct Temperature Sensor No.3	°C
AH	4	Room Duct Temperature Sensor No.4	°C
AH	5	Room Duct Temperature Sensor No.5	°C
AH	6	Room Duct Temperature Sensor No.6	°C
AH	7	Room Duct Temperature Sensor No.7	°C
AH	8	Room Duct Temperature Sensor No.8	°C
DH	17	IDM IPS Alarm Panel 1	Fault/Normal
DH	18	IDM IPS Alarm Panel 2	Fault/Normal
DH	19	Theatre 1 Lamp Control Panel Fault	Fault/Normal
DH	20	Theatre Lamp 1 UPS Status	Fault/Normal
DH	21	Theatre 1 Lamp Control Panel Battery Unit Fault	Fault/Normal
DH	22	Theatre 2 Lamp Control Panel Fault	Fault/Normal
DH	23	Theatre 2 Lamp Control Panel Battery Unit Fault	Fault/Normal
DH	24	Fire Damper Panel Fault Status	Fault/Normal

O/S 11-

8

New Extension MCC1 Roof

AH	1	Room Duct Temperature Sensor No.9	°C
AH	2	Room Duct Temperature Sensor No.10	°C
AH	3	Room Duct Temperature Sensor No.11	°C
AH	4	Room Duct Temperature Sensor No.12	°C
AH	5	Room Duct Temperature Sensor No.13	°C
AH	6	Room Duct Temperature Sensor No.14	°C
AH	7	Room Duct Temperature Sensor No.15	°C
DH	8	Spare Input Point 8	On/Off
DH	17	Fire Alarm Interlock	Trip/Normal
DH	18	UPS Unit 2 Equipment Over Temperature Status	Fault/Normal
DH	19	Medical Gas Alarm Panel Status	Fault/Normal
DH	20	Lighting Control Status	Fault/Normal
DH	21	UPS A Operation Status	On/Off
DH	22	UPS A Fault Status	Fault/Normal
DH	23	UPS B Operation Status	On/Off
DH	24	UPS B Fault Status	Fault/Normal

O/S 11-

9

New Extension MCC1 Roof

AH	1	TCP 1 Room Temperature Set Point	%
AH	2	Room 1 Temperature Adjust	°C

AH	3	Room 2 Temperature Adjust	°C
AH	4	Room 3 Temperature Adjust	°C
AH	5	Room 4 Temperature Adjust	°C
AH	6	Room 5 Temperature Adjust	°C
AH	7	Room 6 Temperature Adjust	°C
AH	8	Room 7 Temperature Adjust	°C
AH	17	Actual Room Temperature To TCP	%
AH	18	Actual Room Humidity To TCP	%
AH	19	TCP Level 1 Dirty Filter/Ventilation Running	%
AH	20	TCP Level 1 Ventilation Setback/Low Airflow	%
AH	21	TCP Level 1/2 Ventilation Fault	%
AH	22	TCP Level 2 Dirty Filter/Ventilation Running	%
AH	23	TCP Level 2 Ventilation Setback/Low Airflow	%
DH	24	Spare Uninput Point 24	On/Off

O/S 11-

10

New Extension MCC1 Roof

AH	1	Room 8 Temperature Adjust	°C
AH	2	Room 9 Temperature Adjust	°C
AH	3	Room 10 Temperature Adjust	°C
AH	4	Room 11 Temperature Adjust	°C
AH	5	Room 12 Temperature Adjust	°C
AH	6	Room 13 Temperature Adjust	°C
AH	7	Room 14 Temperature Adjust	°C
AH	8	TCP 2 Room Temperature Setpoint	%
AH	17	Actual Room Temperature To TCP	%
AH	18	Actual Room Humidity To TCP	%
DH	19	TCP 1 Setback Switch	On/Off
DH	20	TCP 2 Setback Switch	On/Off

O/S 12-

1

AH	1	AHU 05 Pre-Heat Oncoil Temperature	°C
AH	2	AHU 05 Pre-Heat Offcoil Temperature	°C
AH	3	AHU 05 Pre-Heat Offcoil Humidity	%rh
AH	4	AHU 05 Heating Offcoil Temperature	°C
AH	5	AHU 05 Cooling Offcoil Temperature	°C
AH	6	AHU 05 Supply Air Temperature	°C
AH	7	AHU 05 Supply Air Humidity	%rh
AH	8	AHU 05 Supply Air Flow Sensor	Pa
DH	9	AHU 05 Intake Damper Status	Open
DH	10	AHU 05 Discharge Damper Status	Open
DH	11	AHU 05 Panel Filter Alarm	Fault/Normal
DH	12	AHU 05 Bag Filter Alarm	Fault/Normal
DH	13	AHU 05 Duct Frost Stat	Frost/Normal
DH	14	AHU 05 DX Unit Fault	Flow
DH	15	AHU 05 Supply Fan Fault	Fault/Normal

DH	16	AHU 05 Duct Pressure Switch Status	Flow
AH	17	AHU 05 Pre-Heat Coil Control Valve	%
AH	18	AHU 05 Heating Coil Control Valve	%
AH	19	AHU 05 DX Cooling Control Signal	%
AH	20	AHU 05 Supply Fan Speed Control	%
DH	21	AHU 05 Supply Fan Enable	On/Off
DH	22	Extract Fan 05 Enable	On/Off
DH	23	Extract Fan 08 Enable	On/Off

O/S 12-
2

AH	1	UPS Room Space Temperature	°C
AH	2	UPS Room Space Humidity	%rh
AH	3	Extract Fan EF-05 Air Flow Sensor	Pa
AH	4	Extract Fan EF-08 Air Flow Sensor	%
AH	5	HCL-27 Space Temperature	°C
AH	6	HCL-27 Temperature Adjust	°C
AH	7	HCL-27 Supply Temperature	°C
DH	8	Extract Fan EF-05 Fault Status	Fault/Normal
DH	17	Extract Fan EF-08 Fault Status	Fault/Normal
AH	18	Extract Fan EF-05 Speed Control	%
AH	19	Extract Fan EF-08 Speed Control	%
AH	20	HCL-27 Control Valve	%

O/S 12-
3

AH	1	HCL-31 Space Temperature	°C
AH	2	HCL-31 Temperature Adjust	°C
AH	3	HCL-31 Supply Temperature	°C
AH	4	HCL-32 Space Temperature	°C
AH	5	HCL-32 Temperature Adjust	°C
AH	6	HCL-32 Supply Temperature	°C
DH	7	Extract Fan EF-07 Fault	Fault/Normal
DH	8	Extract Fan EF-08 Fault	Fault/Normal
AH	17	HCL-31 Control Valve	%
AH	18	HCL-32 Control Valve	%
AH	19	Spare 19	%
AH	20	Spare 20	%

O/S 12-
4

AH	1	HCL-33 Space Temperature	°C
AH	2	HCL-33 Temperature Adjust	°C
AH	3	HCL-33 Supply Temperature	°C
DH	4	Meeting Rm Wall Mounted AC Unit Status	On/Off
DH	5	Fire Alarm Panel Fault Status	Trip/Normal
DH	6	Fire Alarm Status	Trip/Normal

AH	7	MCC Electrical Meter Puse	Pulses
AH	8	Spare 8	
AH	17	HCL-33 Control Valve	%
AH	18	Spare 18	
AH	19	Spare 19	
AH	20	Spare 20	

Recommended new BMS – Outstations 13-16

O/S 13-1	NEW BMS	Masterair AHU	
AH	1	Supply Air Temperature	°C
AH	2	Return Air Temperature	°C
AH	3	Room Air Temperature	°C
DH	4	AHU Frost Stat	Frost/Normal
DH	5	Supply Fan Airflow	Flow
AH	6	Return Fan Airflow	Flow
AH	7	Panel Filter	Trip
AH	8	Bag Filter	Trip
AH	9	Spare 9	%
AH	10	Spare 10	%
AH	11	Spare 11	%
AH	12	Spare 12	%
AH	13	Spare 13	%
AH	14	Spare 14	%
AH	15	Spare 15	%
AH	16	Spare 16	%
DH	17	SAF Enable	On/Off
AH	18	RAF Enable	On/Off
AH	19	AHU Heating Valve	%
AH	20	AHU Dampers	%
AH	21	Spare 21	
AH	22	Spare 22	
AH	23	Spare 23	
AH	24	Spare 24	

O/S 14-1	NEW BMS	Main Electrical Incomer Plantroom	
AH	1	Electrical Meter 1	Pulse
AH	2	Electrical Meter 2	Pulse
AH	3	Electrical Meter 3	Pulse
AH	4	Electrical Meter 4	Pulse
AH	5	Electrical Meter 5	Pulse
AH	6	Electrical Meter 6	Pulse

AH	7	Electrical Meter 7	Pulse
AH	8	Electrical Meter 8	Pulse
DH	9	Trip Status Breaker 1	Trip/Normal
DH	10	Trip Status Breaker 2	Trip/Normal
DH	11	Trip Status Breaker 3	Trip/Normal
DH	12	Trip Status Breaker 4	Trip/Normal
DH	13	Trip Status Breaker 5	Trip/Normal
DH	14	Trip Status Breaker 6	Trip/Normal
DH	15	Trip Status Breaker 7	Trip/Normal
DH	16	Trip Status Breaker 8	Trip/Normal
DH	17	On/Off Status Breaker 1	On/Off
DH	18	On/Off Status Breaker 2	On/Off
DH	19	On/Off Status Breaker 3	On/Off
DH	20	On/Off Status Breaker 4	On/Off
DH	21	On/Off Status Breaker 5	On/Off
DH	22	On/Off Status Breaker 6	On/Off
DH	23	On/Off Status Breaker 7	On/Off
DH	24	On/Off Status Breaker 8	On/Off

O/S 14-2	NEW BMS	Main Electrical Incomer Plantroom	
AH	1	Electrical Meter 9	Pulse
AH	2	Electrical Meter 10	Pulse
AH	3	Electrical Meter 11	Pulse
AH	4	Electrical Meter 12	Pulse
AH	5	Electrical Meter 13	Pulse
AH	6	Electrical Meter 14	Pulse
AH	7	Electrical Meter 15	Pulse
AH	8	Electrical Meter 16	Pulse
DH	9	Trip Status Breaker 9	Trip/Normal
DH	10	Trip Status Breaker 10	Trip/Normal
DH	11	Trip Status Breaker 11	Trip/Normal
DH	12	Trip Status Breaker 12	Trip/Normal
DH	13	Trip Status Breaker 13	Trip/Normal
DH	14	Trip Status Breaker 14	Trip/Normal
DH	15	Trip Status Breaker 15	Trip/Normal
DH	16	Trip Status Breaker 16	Trip/Normal
DH	17	On/Off Status Breaker 9	On/Off
DH	18	On/Off Status Breaker 10	On/Off
DH	19	On/Off Status Breaker 11	On/Off
DH	20	On/Off Status Breaker 12	On/Off
DH	21	On/Off Status Breaker 13	On/Off
DH	22	On/Off Status Breaker 14	On/Off
DH	23	On/Off Status Breaker 15	On/Off
DH	24	On/Off Status Breaker 16	On/Off

O/S 14-3	NEW BMS	Main Electrical Incomer Plantroom	
AH	1	Electrical Meter 17	Pulse
AH	2	Electrical Meter 18	Pulse
AH	3	Electrical Meter 19	Pulse
AH	4	Electrical Meter 20	Pulse
AH	5	Water Tank - Level Sensor	%
AH	6		
AH	7		
AH	8		
DH	9	Trip Status Breaker 17	Trip/Normal
DH	10	Trip Status Breaker 18	Trip/Normal
DH	11	Trip Status Breaker 19	Trip/Normal
DH	12	Trip Status Breaker 20	Trip/Normal
DH	13	On/Off Status Breaker 17	On/Off
DH	14	On/Off Status Breaker 18	On/Off
DH	15	On/Off Status Breaker 19	On/Off
DH	16	On/Off Status Breaker 20	On/Off
DH	17	Water Tank Low Level Switch	Low/Normal
DH	18	Water Tank Low Low Level Switch	LowLow/Normal
DH	19	Generator Run Status	On/Off
DH	20	Generator Trip Status	Trip/Normal
DH	21	Generator On Load Status	On Load/Off Load
DH	22	ESB Run Status	On/Off
DH	23	ESB Trip Status	Trip/Normal
DH	24	ESB On Load Status	On Load/Off Load

O/S 15-1	NEW BMS	Parnell St - Downstairs	
AH	1	Main Gas Meter	Pulse
AH	2	Main Electrical Meter	Pulse
AH	3	Main Water Meter	Pulse
AH	4	Outside Temperature Sensor	°C
AH	5	Boiler Flow Temperature Sensor	°C
AH	6	Boiler Return Temperature Sensor	°C
AH	7	Radiator 1 Flow Temperature Sensor	°C
AH	8	Radiator 1 Return Temperature Sensor	°C
DH	17	Boiler Enable	On/Off
DH	18	Radiator Pump Enable	On/Off
DH	19	HWS Primary Pump Enable	On/Off
DH	20	HWS Secondary Pump Enable	On/Off
DH	21	Radiator Valve 1	Open/Closed
DH	22	Radiator Valve 2	Open/Closed

DH	23	Radiator Valve 3	Open/Closed
AH	24	HWS Valve	%

O/S 15-2 NEW BMS Parnell St - Downstairs

AH	1	Radiator 2 Flow Temperature Sensor	°C
AH	2	Radiator 2 Return Temperature Sensor	°C
AH	3	Radiator 3 Flow Temperature Sensor	°C
AH	4	Radiator 3 Return Temperature Sensor	°C
AH	5		
AH	6		
AH	7		
AH	8		
DH	17	Boiler Status	On/Off
DH	18	Radiator Pump Status	On/Off
DH	19	HWS Primary Pump Status	On/Off
DH	20	HWS Secondary Pump Status	On/Off
DH	21	HWS High Limit Stat Status	High/Normal
DH	22		
DH	23		
DH	24		

O/S 15-3 NEW BMS Parnell St - Upstairs

AH	1	Boiler Flow Temperature Sensor	°C
AH	2	Boiler Return Temperature Sensor	°C
AH	3	Radiator Flow Temperature Sensor	°C
AH	4	Radiator Return Temperature Sensor	°C
AH	5		
AH	6		
AH	7		
AH	8		
DH	17	Boiler Enable	On/Off
DH	18	Radiator Pump Enable	On/Off
DH	19		
DH	20		
DH	21	Radiator Valve 1	Open/Closed
DH	22	Radiator Valve 2	Open/Closed
DH	23		
AH	24		

O/S 16-1 NEW BMS 1-2 Cavendish Row

AH	1	Main Gas Meter	Pulse
AH	2	Main Electrical Meter	Pulse
AH	3	Main Water Meter	Pulse
AH	4	Outside Temperature Sensor	°C

AH	5	Boiler Flow Temperature Sensor	°C
AH	6	Boiler Return Temperature Sensor	°C
AH	7	Radiator Flow Temperature Sensor	°C
AH	8	Radiator Return Temperature Sensor	°C
DH	9	Boiler Status	On/Off
DH	10	Radiator Pump Status	On/Off
DH	11	HWS Primary Pump Status	On/Off
DH	12	HWS Secondary Pump Status	On/Off
DH	13	HWS High Limit Stat Status	High/Normal
DH	14		
DH	15		
DH	16		
DH	17	Boiler Enable	On/Off
DH	18	Radiator Pump Enable	On/Off
DH	19	HWS Primary Pump Enable	On/Off
DH	20	HWS Secondary Pump Enable	On/Off
DH	21	Radiator Valve	Open/Closed
DH	22	HWS Valve	%
DH	23		
AH	24		