

Agile Building Services Ltd

Attn. Mr Kevin Flint

14 May 2013

90173

Dear Sirs

RE: Lion Medical Centre, Stourbridge

We are pleased to submit our quotation for supply of controls, control panels and associated electrical installation, all as detailed below:

Item	Qty	MCC 1, First Floor Plant Room
<u>Plant Programme</u>		
1	1	Trend IQ3XCITE/96/100-240 96 point expandable IQ3xcite web enabled controller (Mains)
2	1	Trend XCITE/IO/16DI IQ3xcite Module - 16 Digital Inputs
3	1	Trend XCITE/IO/8UI IQ3xcite Module - 8 Universal Inputs
4	1	Trend XCITE/IO/8DO IQ3xcite Module - 8 Relay Outputs
5	3	Trend SRMV Single Relay Module (Voltage SPCO)
6	1	5 Port U/M Ethernet Switch
7	48	Points Of Software Engineering And Preparation Of Control Panel Wiring Diagrams
<u>Frost Protection</u>		
8	1	Trend TB/TO Outside Air Temperature Sensor
9	1	Trend TB/TS Space Temperature Sensor
<u>Gas Safety Circuit</u>		
10	1	Trend GVS50-230 Gas valve screwed 50mm 230Vac
11	3	Electro Thermal Link
12	1	Emergency Knock Off Button
<u>Boilers 2no</u>		
13	4	Trend TB/TI-S Immersion Temperature Sensor - Standard (145mm)
14	4	Trend POC/B/6 6 mm Brass Pocket & compression fitting for all T/PI & TB/TI Immersion sensors
<u>LPHW Primary Pump Set</u>		
15	1	PL-FD113 Water Differential Pressure Switch
<u>Secondary LPHW Circuit Pump Set</u>		
16	1	PL-FD113 Water Differential Pressure Switch

Heating Circuits 3no

17	3	Trend V163N-50-40 Plant Valve - 3 Port 20mm Stroke PN16 Int Thread 50mm Kvs 40
18	3	Trend AL0620-P Plant Valve Actuator - 20mm Stroke 60 Secs 24Vac Proportional
19	3	Trend TB/TI-S Immersion Temperature Sensor - Standard (145mm)
20	3	Trend POC/B/6 6 mm Brass Pocket & compression fitting for all T/PI & TB/TI Immersion sensors

HWS Gas Fired Water Heater

21	1	Trend TB/TI-S Immersion Temperature Sensor - Standard (145mm)
22	1	Trend POC/B/6 6 mm Brass Pocket & compression fitting for all T/PI & TB/TI Immersion sensors
23	1	Electro Controls EBS-3 35/95°C Single Function Immersion Thermostat

HWS Circuit

24	2	Trend TB/TI-S Immersion Temperature Sensor - Standard (145mm)
25	2	Trend POC/B/6 6 mm Brass Pocket & compression fitting for all T/PI & TB/TI Immersion sensors

HWS Return Pump

26	1	PL-FD113 Water Differential Pressure Switch
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Cold Water Storage Tank

27	2	MAC3 Liquid Level Switch
28	1	Trend TB/TI-S Immersion Temperature Sensor - Standard (145mm)
29	1	Trend POC/SS/6 6 mm SS Pocket & compression fitting for all T/PI & TB/TI Immersion sensors

Form 2 Control Panel

30	1	Floor standing enclosure grey finish RAL7035 approximately measuring 1800mm high x 1200mm wide x 400mm deep with hinged front door containing lights, switches and labels. Fully wired internally in P.V.C. cable to outgoing terminals and containing
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Isolation

- 1 - Door Interlocked Isolator
- 1 - Panel Alive Lamp

Gas Solenoid Valve

- 1 - 6 to 63 amp 1 Pole M.C.B
- 1 - 3 Pole Relay c/w Base And Indicator
- 1 - Gas Valve Closed Lamp

Boilers 2no

- 2 - 6 to 63 amp 3 Pole M.C.B
- 4 - 3 Pole Relay c/w Base And Indicator
- 2 - 1 Pole Switch - Hand/Off/Auto
- 2 - Run Lamp
- 2 - Fault Lamp

LPHW Pressurisation Unit

- 1 - 6 to 63 amp 1 Pole M.C.B
- 2 - 3 Pole Relay c/w Base And Indicator
- 1 - Supply ON Lamp
- 1 - Common Fault Lamp

LPHW Primary Pump Set

2 - 6 to 63 amp 3 Pole M.C.B'S
6 - 3 Pole Relay c/w Base And Indicator
1 - 1 Pole Switch - Hand/Off/Auto
1 - 2 Pole Switch - No.1/No.2
2 - Run Lamps
2 - Trip Lamps
2 - Flow Failed Lamps

LPHW Secondary Pump Set

2 - 6 to 63 amp 3 Pole M.C.B'S
6 - 3 Pole Relay c/w Base And Indicator
1 - 1 Pole Switch - Hand/Off/Auto
1 - 2 Pole Switch - No.1/No.2
2 - Run Lamps
2 - Trip Lamps
2 - Flow Failed Lamps

DHW Gas Fired Water Heater

1 - 6 to 63 amp 1 Pole M.C.B
2 - 3 Pole Relay c/w Base And Indicator
1 - 1 Pole Switch - Hand/Off/Auto
1 - Run Lamp
1 - Fault Lamp

DHW Return Pump

1 - 6 to 63 amp 1 Pole M.C.B
2 - 3 Pole Relay c/w Base And Indicator
1 - 1 Pole Switch - Hand/Off/Auto
1 - Run Lamp
1 - Fault Lamp
1 - Flow Failed Lamp

Cold Water Storage Tank

2 - 3 Pole Relay c/w Base And Indicator
2 - High/Low Level Lamp

Cold Water Booster Set

1 - 6 to 63 amp 1 Pole M.C.B
1 - 3 Pole Relay c/w Base And Indicator
1 - Common Fault Lamp

VRF Condenser Units 2no

2 - 6 to 63 amp 3 Pole M.C.B

VRF System

2 - 3 Pole Relay c/w Base And Indicator
1 - Run Lamp
1 - Fault Lamp

Packaged AHUs 2no (power by others)

4 - 3 Pole Relay c/w Base And Indicator
2 - 1 Pole Switch - Hand/Off/Auto
2 - Enable Lamp
2 - Fault Lamp

Controls

4 - 6 to 63 amp 1 Pole M.C.B
100 - SAK 2.5 Terminals
5 - Interlocking/Fire Alarm Interface Relays
1 - 240/24V 300VA Transformer
1 - Push To Test Lamp Pushbutton
1 - 13A Socket Outlet
1 - 1 Set Of O and M Manuals on CD ROM
1 - Fitting items
1 - Delivery of the above to site

Central Supervisor

31	1	Trend 963S/CD/3USER 963 Server Supervisor Software plus 3 client licences (CD only)
32	1	Minimum P4 or equivalent computer with 1Gb RAM, 80Gb hard drive, DVD/CD, on board graphics card, 17" LCD monitor, keyboard and mouse in tower case complete with Windows operating system
33	1	Epson LX300+II Dot Matrix Alarm Printer
34	1	USB Printer Cable
35	1	Pages of Graphics

Electrical Installation

36	1	The associated electrical installation would be carried out in accordance with the latest I.E.E. regulations. We would supply and install all necessary galvanised trunking, conduit, single P.V.C. SWA cables and local isolation (where necessary).
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Commissioning

37	1	Commissioning controls and panel on completion of installation. Assuming plant ready to run, full continuity of work and no site wiring faults by others. (We would suggest a minimum notification period of 14 working days)
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Training

38	1	A Day of On Site Training For Clients Operators
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TOTAL PRICE ITEMS 1-38 £42902.00

Specific Notes

We have assumed that the air handling units will be supplied complete with their own controls and will be powered locally by others.

We have assumed all extract fans will run under the dictates of their own controls and will be powered locally by others.

This quotation assumes all natural ventilation is manually operated.

We have assumed that the heat recovery unit will run under the dictates of its own controls and will be powered locally by others.

We have allowed to control 3no heating circuits via modulating three port valves. We have assumed the size of these valves.

Standard Notes:

*.We do not include for the mains incoming supply to the control panel.

*.We have allowed for marking up prints for 'As Installed' cable route drawings to be produced by others.

*.This quotation assumes all works to be carried out during normal working hours.

*.Unless stated within our quotation, the firemans switch wiring and all fire interlock wiring is excluded from our price.

- *.The installation of immersion sensor pockets, damper motors, valve actuators and water pressure switch tubing is to be by others.
- *.Our quotation excludes any temporary power and control wiring if required.
- *.Earth bonding of ductwork/pipework to the building structure is excluded.
- *.All builders work to be undertaken by others.
- *.We have assumed that all FCU controls (if supplied within this quotation) are to be free issued to the manufacturer for fitting and wiring. We have assumed that a 24v supply will be made available to power the BMS controller and have therefore not included for the supply of any associated transformers.
- *.All FCU 2/3/4 port valves where supplied exclude compression fittings.
- *.It is assumed that all utility meters are supplied and installed by others.
- *.All inverters contained within this quotation are to be installed locally to the plant served unless otherwise stated.
- *.We have assumed that all inverter driven pumps are supplied with integral inverters and pressure controls.
- *.We have allowed standard 2 or 3 port valves and have excluded the supply of any pressure relief valves.
- *.All control panels are provided complete with wiring diagrams, MCB/Fuse Chart and spare fuses where applicable.
- *.Where applicable, O&M documentation is supplied electronically.
- *.We have excluded supply, electrical installation and commissioning of any underfloor heating thermostats, manifolds or associated valves.
- *.Our proposal excludes offloading and positioning of control panels and associated controls or the provision of a crane.
- *.No items listed within this quotation are suitable for use in external areas unless specifically detailed. It is therefore assumed that all weather proofing will be carried out by others.

- *.Our price does not include for a main contractors discount or any other form of discount.
- *.We have excluded the provision of a performance bond or professional indemnity cover.
- *.Should remote interrogation be required then we have excluded the provision of a telephone line or any connection.
- *.The scope of work for the project falls within the requirements of the Construction (Design & Management) Regulations 1994. We are aware of our responsibilities as a contractor and have made adequate provisions with regards to health and safety. T.F.Tull Ltd select appropriate control system products and configure the software in controllers and supervisors. As such we do not have a design responsibility as defined in the regulations.
- *.After Practical completion has been awarded, we have included to provide Operating & Maintenance Documentation on CD ROM.
- *.For commissioning purposes it is assumed that full access to field equipment is available. No allowance has been made for lifting/replacement of floor/ceiling tiles or removal/replacement of any other access entries.
- *.This quotation is offered in conjunction with the T.F.Tull terms and conditions which are available on request.
- *.The above price includes all relevant manufacturer's warranties. However, we recommend annual servicing of all control systems to maintain optimum performance and efficiency. Our Maintenance Department would be pleased to provide recommendations and costs if required.

Yours faithfully,
T.F.Tull Ltd

Ryan Denham
(Sales Engineer)