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Fraser Randall
The Ship
228 Long Lane
London
SE1 4QB

16^h March 2018

Attn. Richard Ainsworth

Quote Ref: 1041-260 Rev.0

Dear Richard,

Re : Imperial War Museum Level 4 (Package: BMS/Controls)

We thank you for the opportunity to tender for the above package. Syscom Building Management are pleased to submit our proposal for discussion to provide the BMS at the above project.

We have based our proposal on the documentation provided and information detailed below:-

- 1) Specifications - See Document Schedule below
- 2) Drawings - See Document Schedule below
- 3) Schedules - See Document Schedule below

Commercial and Technical commentaries to explain our proposal and interpretation of the requirements are provided.

We trust you will find our proposal of interest, and that it can form the basis for further discussions.

Should you require any other details in regards to our proposal then please do not hesitate to contact the writer or David Claridge at our Egham office.

Assuring you of our best intentions at all times

Yours sincerely,

Josh O'Connor

Josh O'Connor
BMS Sales Engineer
Syscom Building Management Ltd.



Building Management Systems - Design, Supply, Installation, Commissioning & Maintenance Solutions
Registered Office: 337 Bath Road, Slough, Berks. SL1 5PR
Registered in England-No: 3642484 VAT Reg No: 720 4484 56



by Honeywell

Pricing Summary

Prelims, PM, CAD, Q.S., Documentation, Training, O&M's	£ 2,534.00
BMS Controls (Outstations / Controllers)	£ 1,537.00
BMS Field Devices (Sensors / DP Switches, Valves)	£ 2,271.00
MCC / Panels (Panel / Enclosure)	£ 3,016.00
Electrical Installation (Control, Power Wiring)	£ 9,513.00
Labour – Software Engineering, Graphics, Commissioning, Witnessing, Handover	£ 8,167.00
TOTAL PRICE	£ 27,038.00

Document Schedule

Specifications

Steensen Varming;

KGSY-51-005 CHP Performance Summary Page 1 of 1

Andel Leak Detection Proposal PROS102432 Dated 26/02/2018 Pages 1 to 6

Fraser Randall;

Pre-Construction Phase Health and Safety Plan Pages 1 to 35

E-mail dated 15.03.2018

Drawings

Steensen Varming;

TIWML4-SV-XX-XX-DR-E6000. 6040, 9061 and SK-01

Neville Bruton Design;

IWM-LRL4-001, 015 and 016

IWM-LRL4-005, 013 and 014 Rev. A

IWM-LRL4-003 and 006 Rev. B

IWM-LRL4-002, 004 and 010 Rev. C

Schedules

Steensen Varming;

TIWML4-SV-SPEC-Equipment Schedules Rev. 01 Dated 09.03.2018 Pages 1 to 12

Technical Commentary

Background:-

This project is for the refurbishment of Level 4 at the Imperial War Museum.

There is a new Air Handling Unit with a Humidifier and a new Fan Coil Unit.

There is a Leak Detection System.

There will be a new BMS Control Panel

There is to be a new Tridium Control System within the Panel connected to the site wide Tridium System.

Summary Scope of Works:-

Our proposal will be based upon the following:-

- 1) We have based our Proposal on supplying and installing a Tridium 8000 Controller and Input/Output Modules in the new Level 4 MCC.
- 2) We have made no allowance for a Tridium Supervisor, this Panel will be connected to the site wide Tridium System.
- 3) We have made no allowance for a Tridium Touchscreen in the MCC door.
- 4) We have based our Proposal on the documentation which is listed above.
- 5) We have prepared a Points List, a summary of which is below.
- 6) We have allowed for all necessary engineering, graphic production, software and commissioning for the new works as indicated below.
- 7) We have allowed for the following Control Panel serving the Plant as listed:

MCC Level 4

- Level 4 Air Handling Unit AHU-01
- Level 4 Extract Fan EF-01
- Fan Coil Unit FCU-01
- Leak Detection System Panel Fault Monitoring
- Leak Detection System Panel 4 Zones Leak Detected Monitoring
- Plantroom EPO Switch
- Fire Alarm Input

- 8) We have allowed for the following control panel as listed above:-

- 1no. Wall/Floor Mounted Control Panel.

The Panel will be manufactured to a standard RAL 7035, **Form 2, Type 2**

The electrical power supply to the Panel is to be installed by the Electrical Contractor.

- 9) We have allowed for Power and Controls Wiring only for the Points as listed in the Points List.

- We have not allowed for the provision of any primary containment as we believe this will be supplied and installed by the electrical contractor.
- We have allowed for an element of secondary containment with the exception of risers where we assume this will be provided by the main electrical contractor.

- 10) **We have allowed for the provision of the following Power Feeds only:**

MCC Level 4

- AHU-01 Supply Fan
- AHU-01 Humidifier
- Extract Fan EF-01
- Fan Coil Unit FCU-01

- 11) BMS Network

This Panel will reside on the clients Ethernet network. We have allowed to Supply a Patch Lead and connect the Panel to an RJ45 socket provided by others within 1 metre of the Panel..

12) Metering via M-Bus High Level Interface

There are no Meters being monitored by this Panel.

13) High Level Interfaces

There are no third party Plant High Level Interfaces connected to this Panel.

14) We have allowed to supply the following Field Devices;

MCC Level 4

AHU-01 and Extract Fan EF-01

- 2 x Space Temperature Sensors
- 2 x Space Humidity Sensors
- 4 x Duct Temperature Sensors
- 4 x Duct Humidity Sensors
- 1 x Static Pressure Sensor
- 4 x Air DP Switches
- 1 x Frost Thermostat
- 1 x 50mm 3 Port Valve and Actuator (assumed size)
- 1 x 65mm 3 Port Valve and Actuator (assumed size)
- 3 x Damper Actuators with Position Switch
- 1 x EPO Switch

FCU-01

- 1 x Space Temperature Sensor
- 1 x Supply Air Temperature Sensor
- 1 x Return Air Temperature Sensor
- 1 x 15mm 3 Port Heating Valve and Actuator (assumed size)
- 1 x 20mm 3 Port Cooling Valve and Actuator (assumed size)

15) We have allowed for training the user in the operation of the system.

Points List Summary

Panel Name	AI	AO	DI	DO	PI	HLI	Total Points	Power 230v	Power 415v
MCC 4th Floor	14	11	19	4	0	0	48	4	0
Totals	14	11	22	4	0	0	48	4	0

Responsibility Matrix

Description	Supply	Install / mount	Power Wiring	Control wiring	Termination	Comment
Controls for AHU & Extract Fan	✓	✓	✓	✓	✓	
Valves & Actuators for AHU	✓	✗	✓	✓	✓	Valves and Actuators Supplied by Syscom. Valve bodies installed by others.
Controls for Fan Coil Unit	✓	✓	✓	✓	✓	
Valves and Actuators for Fan Coil Unit	✓	✗	✓	✓	✓	Valves and Actuators Supplied by Syscom. Valve bodies installed by others.
Leak Detection System	✗	✗	✗	✓	✓	Supplied & Installed by others. Monitored by BMS

Key

✓	By SYSCOM
✗	By others
⊘	N/A

Exclusions and General Notes

1. We have excluded all works associated with the following:-
 - a. Builders Works.
 - b. Mechanical Installation
 - c. Installation of waterside devices
2. No allowance has been made within our prelims for any mechanical or hydraulic work.
3. We have made no allowance for the Installation of the Valve Bodies for the AHU and FCU.
4. We have made no allowance for the Supply and Installation of the Leak Detection System.
5. We have made no allowance for the Monitoring of any Meters.
6. Motor Duty Rating – Unless specified within the tender documentation we have based our proposal on an average of 5.5kW motor ratings. If the motor sizes become available during the tender process there may be additional costs applied to our current contract price.
7. Factory Panel Witness Testing – We have allowed for factory panel witness testing in accordance with the specification. We have allowed a maximum of 4 members of the professional team to attend. Travel and accommodation costs are specifically excluded unless detailed within this proposal.
8. We have allowed for the offloading and position of our equipment and control panels, but have assumed that suitable hoists / lifts will be available for use or if not craneage will be provided by others.
9. We have made no allowance for the Installation of Sensor Pockets, Valve Bodies or Switches in to pipework or tanks.
10. Fire Safety Systems - Fire Cause & Effect Strategy as per the existing installation.
11. We have not allowed for housing any equipment externally. Any weatherproofing to IP65 rating is deemed to be by the Mechanical Contractor.
12. We reserve the right to charge for abortive visits that are not deemed to be caused by Syscom, at our standard daily rates.

MODEL TERMS AND CONDITIONS OF OFFER

(With Syscom Building Management Ltd Amendments)

Office of Fair Trading (OFT) reference number: R 11423

1. Form of Contract

The form of contract is understood to be**TBA**.....

but where the form of contract terms and conditions conflict with those set out below clauses 2 to 22 inclusive hereunder shall take precedence.

Syscom will be more than happy to discuss the conditions during the post tender period.

Key areas we would wish to discuss regarding an agreement on an install contract would be the payment terms to ensure a neutral/positive cash flow; the risks and liabilities, warranty/defects liability period, guarantee/performance bonds and liquidated and ascertained damages.

We confirm that should our bid be chosen we would work together in good faith to arrive at a mutually agreeable contract.

2. Exclusions

Our tender price excludes any allowances for:

- a Builders work, panel bases and plinths, removal and replacement of building fabric elements, cutting holes, making good and painting.
- b Mechanical installation of control devices and pipeline and duct mounted equipment.
- c Draining down, refilling, venting and system balancing.
- d Provision and cost of fuel and power for installation, commissioning and demonstration.
- e Work area lighting and temporary electrical supplies.
- f Compressed air supplies and associated equipment.
- g Removal and disposal of redundant equipment and materials.
- h Provision of continuous site representation.
- i Off-loading, storage, protection, craneage, hoisting and positioning of equipment supplied by us or others.
- j ~~Provision of ladders, scaffolding, trestles, other access equipment, and site accommodation and storage facilities.~~
- k Work being carried out other than in normal working hours.
- l Provision of on-site health and welfare facilities.
- m Provision of 'Planning Supervisor' duties.
- n Working with, removal and handling of asbestos related material.
- o Removal, making good and replacement of thermal insulation.
- p Attendance upon other parties.
- q ~~Any terminations.~~
- r ~~Any installation whatsoever.~~
- s No allowance has been made within this proposal for any attendance for any IST.
- t OTHER ...**See main exclusions in tender document above.**.....

3. Design Responsibility

- 3.1 Responsibility for the design of the system for which we have tendered shall remain vested in the authors of the specifications and information included in the tender documents.
- 3.2 Our Tender includes an allowance for system engineering work to select, co-ordinate and configure equipment, hardware and software of our supply in accordance with the specifications and information received in order to satisfy the specified performance requirements insofar as these may be achievable within the capabilities of the plant, equipment and systems to be controlled.

4. Construction Programme

- 4.1 Our tender price is based upon work being completed between**TBA**.. and ...**TBA**..... and is conditional upon the mutual agreement of a comprehensive co-ordinated programme for the works within four weeks of the date of our acceptance of your instruction to proceed.
- 4.2 The programme shall state agreed start and completion dates and progressive timescales for receipt of information, approvals, deliveries, installation, commissioning and demonstration of the works.
- 4.4 Our preliminaries have been calculated on an anticipated contract period of a **TBA** week programme for BMS activities.
- 4.3 Site Office - No specific allowance has been made to supply on site accommodation for our project management team. We understand that desk facilities will be provided for Syscom staff within the site setup. It is understood that site storage locations will be made available to enable site boxes and materials to be stored. All welfare facilities will be provided by the Main Contractor.
- 4.4 Project Management Team - The costs associated with the project management team have been calculated to provide a part time site presence with Project Manager allowance for the anticipated **TBA**-week contract period. Our projects team will be led by a Project Manager who will be responsible for the overall delivery of the project. The site project team will be fully supported from the Syscom office in Egham.
- 4.5 We have listed below the following lead times as a guide for consideration:-

Mobilisation	1 – 2 weeks
Initial Design Release	2 – 6 weeks
MCC Delivery	4 – 8 weeks
Start on Site	2 – 4 weeks

5. Working Drawings

Unless otherwise specified in the tender documents we undertake to provide ..2.. copies of each issue of Working Drawings to our immediate customer.

6. Commissioning

- 6.1 Commissioning shall be undertaken within the contract period during a timescale to be agreed and written into the construction programme.
- 6.2 We shall commission all equipment within the direct scope of our works where applicable in accordance with the principles of the CIBSE Commissioning Code Series C for Automatic Control Systems.
- 6.3 Should the agreed timescale cease to be accommodated within the contract period for reasons beyond our control commissioning shall be completed thereafter and we shall be exempt from any liability for damages for delay including but not limited to liquidated and ascertained damages.

7. Demonstration

Unless otherwise defined in the tender documents we shall undertake **a single demonstration to client's named representative** of the works to an agreed procedure within a duration of ..1.. day per property to provide reasonable and adequate proof of the effectiveness of system operation.

8. Training

- 8.1 Unless otherwise specified in the tender documents we shall provide training to nominated personnel in the basic operation of the system for a duration of ..1.. day for ..3.. persons to be undertaken at times to be mutually agreed in writing.
- 8.2 It is anticipated that the training will be carried out on site using the installed system.
- 8.3 Any training requested additional to the above shall be subject to **a** separate supplementary quotation.

9. Beneficial Use

Beneficial use of any part of our works by the client or contractor prior to practical completion other than for its own commissioning and demonstration will be at our sole discretion and we shall be exempt from any liability for damages for delay, including but not limited to liquidated and ascertained damages, from the date of commencement of any such beneficial use.

10. Defects Liability

- 10.1 We undertake to rectify all recorded and emergent defects to the system or any part thereof for a period of 12 months from the date of practical completion or commencement of beneficial use whichever is the earlier.
- 10.2 This undertaking is subject to the system and the associated plant being maintained in accordance with manufacturers' recommendations.

11. Record Drawings and Operation & Maintenance Manuals.

- 11.1 We undertake to provide ..2.. copies of the 'As Installed' Drawings and Operation & Maintenance Manuals within ..1.. weeks of the completion of commissioning of our works.
- 11.2 No allowance has been made to provide the information via any third party formats or specialised software system. Should this be a requirement then we would reserve the right to recover any extra associated costs this may entail for Syscom.

12. Computer Software Licensing

- 12.1 Our tender is conditional upon the identified end-user of the system comprising our works signing a Computer Program Software Licence Agreement prior to handover.
- 12.2 The terms and conditions of such Agreement are as stated in the attached document/available upon request.

13. Insurance

Syscom provide the following insurance cover, and the terms of our insurances are available upon request:-

Employers Liability	£ 10 Million
Public & Products Liability	£ 10 Million
Professional Indemnity	£ 5 Million
Contractors All Risks	£ 1.5 Million

14. Limitation of Liability

- 14.1 Neither we nor the Customer shall be liable to the other by way of indemnity or by reason of tort (including but not limited to negligence) for any loss of profit, loss of use, loss of production, loss of contracts or for any financial or economic loss or for any indirect or consequential damage whatsoever that may be suffered by the other.
- 14.2 In no circumstances whatsoever shall our liability to the Customer under the Conditions for any one act or default exceed the Contract Price.

15. Pricing

- 15.1 This Tender is based upon a fixed price for contract completion up to **TBA**..... and any works carried out beyond this date shall be subject to adjustment using adjustment formulae and indices for works, with a material: labour ratio of %: % and a non-adjustable element of% with a base date of
- 15.3 All prices quoted are strictly net and exclusive of discount of any kind.

15.4 Labour – Schedule of hourly rates:-

LABOUR DAYWORK- HOURLY RATE		Project Director	Project Manager	Quantity Surveyor	Project / Design Engineer	Software / Commissioning Engineer	Site Supervisor	BMS Electrician
Normal Working Hours	08:30 - 17:30	£75.00	£66.50	£66.50	£57.50	£57.50	£45.00	£35.50
Outside Normal Working Hours	17:30 - 22:00	£90.00	£81.50	£81.50	£74.00	£74.00	£55.69	£44.56
Outside Normal Working Hours	22:00 - 08:30	£100.00	£91.50	£91.50	£86.00	£86.00	£62.81	£50.25
Saturdays	08:00 - 13:00	£90.00	£81.50	£81.50	£74.00	£74.00	£55.69	£44.56
Saturdays	13:00 - 24:00	£100.00	£91.50	£91.50	£86.00	£86.00	£62.81	£50.35
Sundays	All Hours	£100.00	£91.50	£91.50	£86.00	£86.00	£62.81	£50.35
Bank Holidays (Except Christmas)	All Hours	£120.00	£110.00	£110.00	£100.00	£100.00	£70.00	£60.00
Christmas Holiday		£150.00	£120.00	£120.00	£110.00	£110.00	£75.00	£70.00

16. V.A.T

All prices exclude V.A.T and acceptance of our Tender shall be deemed an agreement to pay to us all V.A.T properly chargeable and due.

17. Changes

- 17.1 Changes to the original contract and scope of works will be progressed only after our receipt of Customers written instructions which may include hand-written instructions signed by the Customer.
- 17.2 Changes to the original contract will be valued wherever practicable in accordance with the Schedule of Rates or Bill of Quantities submitted to substantiate the value of the original contract.
Where this is not practicable rates and/or quantities calculated in a manner taking account of the different circumstances under which the work is to be progressed will be applied.
- 17.3 Where the scope of work cannot be progressed in the same manner as the original scope of work, time and material records and daywork rates will be applied with the following percentage additions to the RICS/HVCA definition of prime costs of labour, materials and plant:
Labour ..20.. %, Material ..20.. %, Plant ..25.. %.
- 17.4 The parties shall agree a method of valuation and payment for the completion of the works which will include recovery of any loss and/or expense.

18. Payment

- 18.1 The payment provisions shall be in accordance with the Housing Grants, Construction and Regeneration Act 1996 with the following appropriate payment terms:-
 - a The Relevant Period shall be monthly.
 - b The Payment Due Date shall be 10 days after the end of the Relevant Period or the date of issue of a claim by us whichever is the later.
 - c The Customer shall within 5 days of the Payment Due Date issue to us a Notice Of Amount Of Payment specifying to what the payment relates and the basis upon which the amount is calculated.
 - d The Final Date For Payment shall be 18 days after the Payment Due Date
- 18.2 Where the above act does not cover our works then payment of interim invoices will be 30 days from date of invoice.
- 18.3 Should the Customer fail to make full payment to us in accordance with clause 18.1, and such failure continue for 7 days after we have given the Customer written notice of the same, then we may suspend the further execution of the works until such payment has been made and such suspension shall not be deemed a failure on our part to proceed with the works.
- 18.4 We shall retain title to all goods supplied until the value of the said goods has been paid in full.
- 18.5 We reserve the right to seek payment guarantees in the form of pro-forma invoice, parent company guarantee, avalised bill of exchange or such other assurance as we may deem appropriate.
- 18.6 Payment to Syscom Building Management Ltd will be made irrespective of payments to yourselves.

19. Set-Off

Any right of Set-Off claimed shall be restricted to this particular contract only and no deduction shall be made prior to our agreement in writing.

20. Validity

Our price will be held open for acceptance for a period of ...60 days from the date of our offer/proposal/quotation/tender.

21. Arbitration/Adjudication

Any disputes shall be dealt with in accordance with the Housing Grants, Construction & Regeneration Act 1996, Part II, Section 108.

22. Law

Any contract arising from this Tender shall be subject to the Laws of England.

23. Service & Maintenance

We can provide a full detailed Service & Maintenance proposal should this be requested.