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Chartered Institute of
Architectural Technologists

THE BURTON EMERY PARTNERSHIP

83A Mount Road Hinckley Leicestershire LE10 1AE Tel 01455 614556 Fax 01455 250762 Email burton.emery@btconnect.com

GB/SS/3846

4 February 2008

Planning Department
Hinckley & Bosworth Borough Council
Council Offices
Argents Mead
HINCKLEY
Leicestershire
LE10 1BZ

DEVELOPMENT SERVICES
05 FEB 2008
RECEIVED

Dear Sir

Re: Planning Portal Planning Application Reference: PP-0000359853
Proposed Air Conditioning Condensing Unit Installation At Millennium Hall, Britannia Road, Burbage, Leics. LE10 2HF for Burbage Parish Council

Further to the above Planning Application submitted on-line on 29 January 2008 through the Planning Portal, and your letter dated 30 January 2008, please find enclosed a cheque in the sum of £67.50.00 to cover the Planning fees.

We also enclose four copies of the Site Location Plan and one photocopy of the Air Conditioning literature.

We trust this meets with your requirements and look forward to your decision in due course.

Yours faithfully

The Burton Emery Partnership Ltd

Enc. Cheque
Copy of Planning Portal Confirmation
4 copies of Site Location Plan
1 photocopy of Air Conditioning literature.

CHILLAIRE LTD.

AIR CONDITIONING - HEATING - VENTILATION

Registered in England
No. 2686557

Head Office
Coventry
Established 1992

Head Office:
Units 1 & 2 Veasey Close,
Attleborough Fields Ind Est,
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Tel: (024) 7632 0300
Fax: (024) 7632 0400
24 Hour: (024) 7642 1052
website: www.chillaire.co.uk
e-mail: sales@chillaire.co.uk

Burbage Parish Council
Millenium Hall
Brittania Road
Burbage
Leicestershire
LE10 2EF

28th June 2007

Our Ref : QF/JB5165/07B

DEVELOPMENT SERVICES
05 FEB 2008
RECEIVED

For the attention of Mrs Julie Perrins

Dear Mrs Perrins

Re; Air Conditioning - Main Hall

Further to our recent telephone conversation concerning the proposed installation of air conditioning within the ground floor main hall, we offer our revised quotation, based upon the new position of the outdoor condensing units at the rear of the building.
To meet the cooling and heating requirements within the ground floor area, we offer the installation of the following two twin cassette systems:
4No Sanyo SPW - XDR254GH56 Ceiling mounted cassette units
2No Sanyo SPW - CR484GH56 Inverter heat pump twin condensing units.
See enclosed general layout sketch and manufacturers literature for further reference.

We have costed for the works to be conducted during normal working hours.

Please find within this quotation the technical parameters, inclusions and exclusions that make up this offer. Should you require any further information or assistance relating to this offer, please do not hesitate to contact us at the above office.

Yours sincerely,
For and on behalf of Chillaire Limited

J Bedward

John Bedward
Sales Contracts Manager

Encl:

INTRODUCTION TO AIR CONDITIONING SYSTEMS

Heat Gain Summary

All types of conventional air conditioning systems, in particular " split systems ", have a total cooling capacity derived from a combination of "sensible" and " latent" capacities. Typically, split systems have a sensible heat ratio of approx 0.70, i.e. 70% of the total cooling capacity is the removal of sensible heat (the avoidance of heat build-up). The remaining 30% is latent heat removal, i.e. the removal of heat contained in moisture.

In almost all office environments, the sensible requirement is critical. Therefore the chosen system should have sufficient, sensible capacity, at UK conditions, to avoid a build up of temperature and to maintain ideal comfort levels, as selected below.

Heat Gain Assessment

The heat gain results that follow show the heat removal rate required to maintain a comfort level of 21°C ± 2°C, based on an external temperature of 28°C . For most building applications the heat loss will always be less than the heat gain. Therefore the equipment recommended will provide all year comfort levels, whether heating (optional) or cooling.

Heat Gain Results

Ground floor area	**Main Hall**
Sensible Heat Gain - watts	**16635**
Latent Heat Gain - watts	**6168**
Total Heat Gain - watts	**22803**

Considerations of Calculations

Solar transmission	-	(External building heat gains)
Walls/Floors/Ceilings	-	(Internal heat gains)
Solar transmission	-	(Glazing & sky lights)
Air change rate/hour	-	(Volume of air changed in any 1 hour)
Lighting	-	(Incandescent or Fluorescent)
Equipment	-	(P.C. & printer / photocopiers / machinery)
People	-	(Nature of work - Sensible & Latent)

Additional Products and Services - Design & Installation

Ducted Systems	Water Detection Systems	Temperature Monitoring
Air Purification	Air Extraction	Chilled Water Systems
Humidifiers	Heat Recovery	Industrial Process Chillers

BRITISH STANDARD - MATERIALS & WORKMANSHIP

All equipment will be year 2000 compliant.
All equipment will be C.E marked and approved as per current specification.
All refrigerant copper tubing will conform to BS 2871 copper tube British Standard.
All copper tube insulation will be 'O' class fire resistant insulation or equivalent and will conform to BS 476 British Standard.
All pipe work will be leak tested and charged with refrigerant R410a or R407C.
All electrical cable installation will conform to BS 7671 British Standard IEE electrical installation specification.
(If applicable) All solid ductwork will be designed and installed to BS standard DW/142.
All work will be carried out in accordance with current Health & Safety Regulations.

Exclusions

1/ Any specialist builders work or structural modifications.
2/ Any out of hours work / or any delivery of equipment out of hours.
3/ Supply or installation of mains electrical power supplies / isolators.
4/ Special paint finishes.
5/ Security cages or structures.
6/ Special project drawings.
7/ Site equipment protection / post installation protection.
8/ Provision of heat / cooling loads during commissioning
9/ BMS wiring or associated accessories

Company Details

Insurance Details - Employers liability - £10 million & Public Liability - £5 million.
Health & Safety - H&S policy, Risk Assessments & Method Statements available on request.
Our terms & conditions - apply at all times, a copy may be attached or is available on request.

Customer Responsibilities

To ensure that the area's we will be working are cleared and accessible, as we cannot be held responsible for any damage to equipment left in place in the working area.

To notify and obtain permission for all area's of work and the location of the equipment from the relevant council office, landlord and/or centre management.

Internal Units

We recommend the four cassette units are mounted within the false ceiling grid, at suitable positions within the hall area, offering an even airflow throughout.
Each unit will be supported from roof joists via 10mm threaded rods.
A scaffold tower will be used to mount indoor units.

External Condensing Unit

The external condensing units will be bracket mounted at high level (2 - 3m) at the rear of the biulding, adjacent to the entrance doorway.
A scaffold tower will be used to mount outdoor units.

Interconnecting refrigerant pipe work and wiring.

The refrigerant pipe work and wiring will come directly out of the rear of each cassette unit, on cable tray, across the void to the side of the building and out through the outer rear wall, interconnecting the indoor and outdoor units.
The pipe work will be insulated with 9mm Vidoflex and sealed to eliminate condensation leakage.
A scaffold tower will be used to install pipe work at high level.

Condensate Drain

As the warm air passes through the indoor fan coil units, the air conditioner extracts moisture from the air which is held in the unit and is transformed into small amounts of condensation water and collects in a special tray within the unit and to be drained away. There are two ways to remove the condensate water; a) gravity drain or b) condensate pump.
Cassette units are fitted with condensate lift pumps, removing water from the drip tray via plastic pipe work and drained to a suitable internal or external drain point.
Never place any valuable equipment, directly under any air conditioning system

Control

With multiple systems, we recommend they are controlled by a single controller.
The hard wired controller(s) will have the following functions:
Temperature set point adjustment and display, fan speed adjustment and display, cooling & heating modes, fan circulation only function, counter time on / off facility.

Delivery & Installation

At the time of writing all equipment is ex stock and we would anticipate the total installation will take approximately 6/7 days to complete.

Equipment Specification

Ground Floor		Main Hall
Selection / Manufacturer	-	**Sanyo**
Type of equipment	-	**Twin Cassette**
Model reference	-	**XDR254**
Refrigerant	-	**R410a**
Quantity	-	**Two**
Sensible Cooling Capacity	-	**16.9 kW**
Latent Cooling Capacity	-	**8.1 kW**
Total Cooling Capacity	-	**25.0 kW**
Total Heating Capacity	-	**28.0 kW**

Quotation

Our net price to supply, install & commission the quoted equipment, during normal hours, including mains electrics and the first 12 month service contract is:

£10,054.00

Mains Electrical Supply

The new systems each operate on 240v/1ph power supply and will be fitted with a weatherproof "D" motor-rated rotary isolator installed locally to the external condensing unit.

Phase:	**1 Ph**
Fuse Size:	**32 amps**

Service/Warranty Contract

The Sanyo systems offered in this quotation comes with a 36 month extended warranty, subject to the equipment being serviced in accordance with the manufacturers recommendations.
Other items such a pipe work, electric isolators, cable etc carries a standard 12 month warranty.

Our price to continue the one star contract, based upon 2 service visits per annum and to qualify for the extended warranty is £325.00 net per annum.

The warranty commences from the date of delivery to site.

Payment- Terms & Options

Payment Options - Cheque, Bacs Transfer, Credit Card, Finance (subject to status)

Payment Terms

Upon completion of the works, we will require full payment within 14 days of receiving our iinvoice unless otherwise agreed in writing, prior to commencement.

Payment Options

Personal / Company cheque or Bacs Transfer

You can pay by cheque or you can arrange for a Bacs Transfer direct to our account

Credit Card Option

You can pay by credit card, we take all major credit cards; **Visa, Access, Master card, Delta, Switch.**

Finance

Lease Purchase

You can Lease Purchase the equipment by simply putting down a deposit of 10% plus all of the vat. If you are vat registered you can instantly claim the vat back and then pay monthly or quarterly repayments over one to five years.

Lease Rental

You can lease rental the equipment on a monthly basis over one to five years. There is no deposit or vat required, you simply start paying a fixed monthly amount over your desired period. You will be eligible, if you are vat registered, to instantly claim all of the vat back. At the end of the lease rental agreement, for a sum of 3% of the total value, we can sign over the title of the equipment to yourself, or if you wish to replace it, start a new scheme.

Benefits of Lease Purchase / Lease Rental

1/ The air conditioning is installed for you without the need for capital expenditure.
2/ You can keep the cash and any bank facilities free for working capital.
3/ The rentals are fixed providing accurate forecasting.
4/ It is simple to upgrade your equipment when your requirements change.
5/ All lease rentals are tax deductible.

BURBAGE MILLENIUM HALL

CHILLAIRE REF: 5165/07

2 x TWIN CEILING CASSETTE SYSTEMS

