SPECIFICATION

for

RELOCATION OF MECHANICAL & ELECTRICAL SERVICES FROM THE CUBAN BUILDING "C" FAÇADES IN LINE WITH PLANNING REQUIREMENTS

at

CAMDEN STABLES
CAMDEN HIGH STREET
LONDON
NW1 8NH

OPTIMA *B.E.S.* Ltd.
Highclere
34 Abbots Road
Abbots Langley
Herts
WD5 0AZ

Tel: 01923 267107
Fax: 01923 270223
E-mail: OptimaBES@aol.com

REF: AP297/Spec/M&E/T -Tender Issue

DATE: AUGUST 2015

CONTENTS

		Page No.
SECTION ONE – ADMINISTRATION AND PRELIMINARIES		
1.1	**Definitions and Abbreviations**	**1.1**
1.1.1	Definitions	1.1
1.1.2	Abbreviations	1.3
1.2	**Conditions and Administration**	**1.3**
1.2.1	General	1.3
1.2.2	Visiting Site	1.3
1.2.3	Builders Work	1.4
1.2.4	Storage and Plant	1.4
1.2.5	Protection	1.4
1.2.6	Control of Noise	1.5
1.2.7	Programme Requirements	1.5
1.2.8	Priced Schedules of Quantities	1.6
1.2.9	Membership of Recognised Trade Bodies	1.6
1.3	**General Requirements**	**1.6**
1.3.1	Scope	1.6
1.3.2	Design Responsibility	1.6
1.3.3	Sub-Letting	1.7
1.3.4	Related Documents	1.7
1.3.5	Regulations	1.7
1.3.6	Removal of Existing Services	1.8
1.3.7	British Standards	1.8
1.3.8	Electricity Supply	1.8
1.3.9	Fuel for Testing	1.8
1.3.10	Space for Plant	1.8
1.3.11	Comments by the Tenderer	1.8
1.3.12	Drawings General	1.9
1.3.13	Builders Work Drawings	1.9
1.3.14	Installation Drawings	1.9
1.3.15	Variation Drawings	1.10
1.3.16	Installation Maintenance	1.10
1.4	**Design Criteria**	**1.10**
1.4.1	Environmental conditions	1.10
1.4.2	Design Parameters	1.10
1.4.3	Mechanical & Electrical	1.10
1.5	**Handover Procedure**	**1.11**
1.5.1	Operating and Maintenance Manuals	1.11
1.5.2	Testing, Commissioning, Proving and Demonstration	1.12
1.5.3	Instruction and Demonstration	1.12

SECTION TWO – PARTICULAR SPECIFICATION AND WORKMANSHIP & MATERIALS

2.0	**Introduction**	**2.1**
2.1	**Existing Mains Distribution**	**2.3**
2.2	**Electrical Distribution**	**2.4**
2.2.1	Cable sizing	2.4
2.2.2	Circuit Loadings	2.4
2.2.3	Circuit Protective Devices	2.4
2.3	**Small Power**	**2.4**
2.4	**Lighting Installation External**	**2.4**
2.4.1	General	2.4
2.4.2	Luminaires Block C External	2.4
2.4.3	Lighting Control & Switches	2.5
2.5	**Service Cupboards**	**2.5**
2.5.1	General	2.5
2.5.2	Service Cupboard Requirements	2.5
2.6	**LV & ELV Cabling**	**2.5**
2.6.1	Remove & Connect	2.5
2.7.	**Mechanical Services Building C**	**2.6**
2.7.1	General	2.6
2.7.2	Cold Water Installation	2.6
2.7.3	Gas Services Distribution	2.7
2.7.4	Existing Air Conditioning Units	2.8
2.7.5	Soil & Vent Pipe Installations	2.8
2.7.6	Rain Water Pipes	2.9
2.7.7	Cuban Kitchen Extract	2.10
2.7.8	Gas Boilers	2.11
2.8	**Testing & Commission**	**2.11**

APPENDICES

Appendix A1	**Drawings**	**A1.0**
A1.1	Tender Drawings	A1.1
A1.2	List of Related Drawings	A1.2
Appendix B	**Tender Form**	
B1	**Tender Price Summary – Electrical**	**B1**
B2	**Daywork Details - Electrical**	**B2**
B3	**Tradesmen, Rates & Hours**	**B3**
B4	**Alternatives**	**B4**
B5	**Details**	**B5**

SECTION ONE

ADMINISTRATION AND PRELIMINARIES

1.1 DEFINITIONS AND ABBREVIATIONS

1.1.1. DEFINITIONS

The following definitions which are used within this specification shall have the meanings hereby assigned to them except where the context otherwise requires:

The Client - Stanley Sidings Ltd
12 Castlehaven Road
London
NW1 8QW
Tel: 02074289996

The Architect - The Architect appointed by the Client for the project namely;

Heritage Architecture Ltd
The Banking Hall
62 Chiswick Road
London
W4 2NL
Tel: 0208 748 5501

Structural Engineer - The Structural Engineer appointed by the Client for the project namely;

To be confirmed

The Engineer - The Engineer appointed for Engineering Services by the Client for the project namely;

OPTIMA *BES* Ltd.
Highclere
34 Abbots Rd.
Abbots Langley
Herts.
WD5 0AZ
Tel: 01923 267 107

1.1.1. DEFINITIONS continued ….

The Contract Administrator - The person or persons appointed by the Client; who shall make such visits to site as necessary to ensure that the works are executed generally according to the designs and specifications and otherwise in accordance with good engineering practice.

The Project - The Project with which the Client is proceeding and of which the Works forms a part.

The Engineering Services - The mechanical, electrical and public health services and, other building services, installations, plant and equipment comprising the Works.

The Works - The Engineering Services in connection with which the Client has engaged the Consulting Engineer to perform professional duties.

The Main Contractor - Company or persons appointed, and under contract to the client to execute the main contract works.

The Sub-Contract - Sub-contract to be arranged between the Main Contractor and Services Contractor.

The Services Contractor - The company, firm or person appointed to execute the subcontract works and is also defined as the ***Services Contractor***.

Sketch Drawings - Line diagrams and layouts indicating basic proposals, location of main items of plant, routes of main pipes, air ducts and cable runs in such detail as to illustrate the incorporation of the Engineering Services within the Project as a whole.

Tender Drawings - Drawings prepared in such detail as may be necessary to enable those tendering to carry out the detail design for the Works and to submit competitive tenders for the execution of the Works.

Co-ordination Drawings - Drawings showing the interrelationship of two or more Engineering Services and their relation to the structural and architectural details. Such drawings shall be provided to a scale of not less than 1 to 50 unless otherwise agreed and be prepared in such detail as to demonstrate that the Engineering Services will be properly separated from one another and can be satisfactorily installed and maintained.

Builders Work Drawings and/or schedules - Information prepared to show requirements for architectural or structural provisions necessary to facilitate the execution of the Works and allow their integration into the Project. Such drawings should include requirements for foundations, bases and supporting structures for plant or equipment and be prepared to scales appropriate to the stage of design development to which they relate.

Installation Drawings based on the Tender Drawings - Drawings and/or Co-ordination Drawings showing details of the Services Contractors and/or their Services Contractors proposals for the execution of the Works. The drawings will be in such detail as to enable the Works to be installed.

Shop Drawings - Drawings produced for the purpose of explaining how the components of the designs are to be fabricated.

1.1.1. DEFINITIONS continued ….

Record Drawings - Drawings normally prepared by the Services Contractor or a Specialist Installer in order to provide the Client with a record of the Works as installed.

Approved - Approval in writing by the Consultant unless otherwise stated. The approval of a design or piece of equipment shall be without prejudice to the site tests required after installation. Unless deviations are detailed in full all things offered in the tender shall be deemed to comply with the Specification(s) and/or Drawing(s).

1.1.2. ABBREVIATIONS

The following abbreviations and definitions are used in this specification.

MICC	Mineral Insulated Copper Cable
BS	British Standard
DoE	Department of the Environment
HVCA	Heating and Ventilating Contractors Association
IEE	Institution of Electrical Engineers
PVC	Polyvinylchloride
CA	Contract Administrator

1.2 CONDITIONS AND ADMINISTRATION

1.2.1 GENERAL

This section with certain contractors design portions shall be read in conjunction with all other sections, documents and drawings. The Services Contractor referred to herein is deemed to be the Services Contractor for the Engineering Services installations.

The contract conditions shall be the JCT Standard Form of Building Contract, with Contractor's design. 2005 Rev 1 Edition incorporating Amendments all as scheduled. The Sub-Contract shall be with Contractors Design for the Engineering Services. There shall be a 12 month defects period for the Works from handover at which time there shall be an inspection and any defects identified to be remedied before for the final release of retention.

The Services Contractor shall in particular be aware of the following conditions:

1.2.2 VISITING SITE

The Services Contractor shall be deemed to have visited the site before quoting for the works and to be satisfied as to local conditions, accessibility of the site, full extent and nature of the works, CDM requirements, the supply and the conditions affecting labour, carriage and unloading, craneage scaffolding and ladders or any other factor required for the execution of the works. No claim on the grounds of lack of knowledge shall be accepted. Prior to any visits to site 48hours notice shall be given to the Client otherwise access to the site may be denied

1.2.3 BUILDERS WORK

All necessary builders work including cutting and forming chases/ducts, forming holes and making good, cutting and forming holes over 50mm in diameter through the structural slab foundations, cladded walls and roofs, bases and primary supporting structures for plant or equipment and making good shall be carried out by the others. All secondary supports including the spanning of purlins with slotted deep section channel shall be carried out by the services contractor.

The Services Contractor shall, however, be held responsible for supplying all necessary information required for marking out the position of holes, chases, etc., to be cut or formed by others and for the accuracy of such information supplied.

The Services Contractor shall include for drilling, supplying and fixing all necessary equipment for the completion of the works.

The Services Contractor shall allow for craneage to lift equipment onto roofs or areas of limited access and provide and supply all scaffold necessary for carrying out the Works internally and externally.

1.2.4 STORAGE AND PLANT

The Services Contractor shall be responsible for providing independent secure storage facilities and shall agree with the CA regarding the location of such storage.

All tools, electric drills, etc., necessary for the proper execution of the work shall be provided by the Services Contractor.

1.2.5 PROTECTION

All plant, equipment, materials and parts shall be delivered to site in a new condition and protected against damage due to handling or due to adverse weather or other circumstances and so far as is practicable shall be kept in the packing cases or under protective covers until required for use.

Any materials damaged in transit or onsite shall be rejected and replaced without extra cost to the Client.

The Services Contractor shall suitably protect, cover over or encase as may be appropriate all plant and equipment, pipework, insulation etc. installed by him against damage due to building operations or adverse weather or other causes up to the Date of Practical Completion (PC) and shall make good any damage and hand over the entire installation in a new and undamaged condition.

During the progress of the Works all open ends of pipes, ducts, conduits, etc. shall be suitably capped to prevent the ingress of foreign matter.

1.2.6 CONTROL OF NOISE

The Services Contractor shall allow for and ensure that all measures to control the noise levels produced by the Engineering Services on site, required under or by virtue of any enactment or regulation or by the working rules of any industry, are strictly complied with. The Contractor's attention is drawn in particular to the Noise Abatement Act 1960 and The Noise at Work Regulations 1989 including all amendments thereto. Guidance on measures which can be taken to control noise levels is given in the Health and Safety Executive publications, Sound Solutions HS(G)138, Noise in Construction IND(G)127L, Dust and Noise In Construction CCR73, Guidance on the Noise at Work regulations 1989 L108, and Introducing The Noise at Work Regulations IND(G)75.

The contractors shall also work to the requirements of BS 5228 Noise and Vibration Control on Construction and Open sites

Specifically the Services Contractor shall arrange for the following in respect of all work done under the engineering services contract:-

a) That all compressors used on the site are silenced either by using only fully silenced models or models fitted with effective exhaust silencers and properly lined and sealed acoustic covers, all to the designs of the manufacturers of the compressors.

b) That ancillary pneumatic percussive tools and other machinery used on site are fitted with silencers of a type recommended by the manufactures thereof.

c) That every such compressor, silencer or other contrivance is maintained in good and efficient working order and shall not have been altered in such a way that the noise caused in operation is not made greater by the alterations.

The hours of working for the site for the duration of the project will be as stated in the main contract document.

1.2.7 PROGRAMME REQUIREMENTS

The Services Contractor shall prepare a detailed programme of works within 21 days of an appointment, ensuring that adequate provision is made for the preparation of installation details and information, and to properly and logically install the engineering services in conjunction with the building activities. Ensure adequate allowance is made both for completion of the installation, testing and commissioning of the whole works.

All holes required in reinforced concrete walls, ring beams and load bearing brick walls shall to be precisely located by the Services Contractor on to builderswork drawings at an early stage of the contract for approval by the structural engineer.

Generally the Services Contractor shall ensure that the Main Contractor/Client has agreed to and is fully aware of the time required for the Contractor to properly and logically install the Engineering Services by insisting upon detailed consideration to these matters given from the earliest stages.
The sequencing/programming and timing of the installation works be carried out in the knowledge that the stables market will be open for business most if not all of the time that the services installation work shall be undertaken. The services contractor shall give notice to the client of any works and period of time that could prevent the merchants from trading safely.

1.2.8 PRICED SCHEDULES OF QUANTITIES

Upon being advised that the tender is receiving consideration the Services Contractor shall prepare, and submit in duplicate a priced schedule of quantities as the summary of tender to provide a rate for each item. Not more than two tenderers will be requested to produce these schedules. These rates shall be used for pricing variations.

1.2.9 MEMBERSHIP OF RECOGNISED TRADE BODIES

It is a requirement that the Services Contractor belong to a recognised trade association, as a minimum ECA, NICEIC, HVCA, NAPSC and CORGI before consideration of this tender return.

The tenderers may be required to provide proof of membership at the discretion of the C.A.

1.3 GENERAL REQUIREMENTS

1.3.1 SCOPE

This specification relates to the design, supply and installation of the Engineering Services.

The scope of work covered by this specification shall include the partial design, co-ordination, drawing and detailing, procurement and delivery of all plant and equipment and materials, installation of all services to form a ‘complete installation’ including balancing, setting to work, testing and commissioning as are prescribed in subsequent clauses and elsewhere in the documentation and as may be required to give effective and safe working installation(s) to the satisfaction of the client.

The words 'complete installation' above shall mean not only the major items of plant and equipment conveyed by this Specification, but all the incidental sundry components necessary for the complete execution of the works and for the proper operation of the installation, with their labour charges, whether or not these sundry components are mentioned in detail within the tender documents issued in connection with the contract.

It is the Services Contractor responsibility to check the documents provided and to satisfy themselves that they can be incorporated into the works in the manner described, having particular regard to the sizing, routing and fixing of all service runs.

The Services Contractor shall include all responsibilities under CDM as the designer and Services Contractor and shall supply all health and safety documentation including Heath and Safety File for the Project as required to the CA.

1.3.2 DESIGN RESPONSIBILITY

The Services Contractor shall be solely responsible for the verification and completion of design of the installation to the Client with regards to the scope of works described in the attached specification and drawings.

The specification inter alia the drawings listed in Appendices comprise the concept and performance demands relating to the tenders functional design and engineers scheme. For the purposes of interpretation the Performance Specification takes precedence over the drawings.

1.3.2 DESIGN RESPONSIBILITY Cont'd ….

The specification and drawings provide an indication of a number of capacities and sizes for certain aspects of the services installations. **The tenderer should note that the specification and drawing information is indicative of design concept only and that this in no way relieves them of their full responsibility for aspects of the design and the satisfactory provision of a 'complete installation' that should include the quantity, layout and sizes of equipment that shall perform in accordance with the stated design criteria**. Claims for additional cost, as a result of the tenderer failing to comply with this requirement, shall not be accepted.

1.3.3 SUB-LETTING

The Services Contractor shall not assign or sub-let this Contract or any portion of the work except with the written consent of the CA or Engineer.

1.3.4 RELATED DOCUMENTS

This specification shall be read in conjunction with the conditions of contract and any schedules, supplementary specifications, drawings and other documents issued with it and enumerated in the invitation to tender.

1.3.5 REGULATIONS

The installation(s) shall comply with all relevant statutory instruments and regulations and in particular with the following:-

a) BS7671:1992 IEE Regulations for the Electrical Equipment of Buildings.

b) The Electricity Supply Regulations 1988.

c) The Electricity at Work Regulations 1990.

d) The Building Regulations.

e) Local Authority Regulations and Bye-laws.

f) Local Authority Fire Officer.

g) The London Petroleum Act.

h) The Gas Safety 1994 (Installation and Use) Regulations: 1994 and amendments.

i) The Health and Safety at Work Act 1974.

j) The Workplace (Health, Safety and Welfare) Regulations 1992.

k) Construction (Design and Management) Regulations 2007

l) The Clean Air Acts.

m) Any special regulations issued by the local Electricity, Gas or Water undertaking.

n) The Control of Pollution Act.

1.3.5 REGULATIONS Cont'd ….

o) The Noise at Work Regulations 1989.

p) The Control of Asbestos at Work Regulations 1987.

q) COSHH Regulations 1988.

r) The Offices, Shops and Railway Premises Act 1963.

s) The Local Building Control Officer.

The tender shall be based on the regulations current on the date for return of tenders. If these regulations are amended or new regulations enacted after the return tender date the consultant shall be informed immediately.

1.3.6 REMOVAL OF EXISTING SERVICES

The services contractor shall as a portion of their works remove the existing services as described within this specification and replace re-route with new installation works. Any temporary works or making safe existing shall be undertaken by the services contractor shall be reported to the architect/client for review.

1.3.7 BRITISH STANDARDS

The equipment and/or installation(s) shall comply with relevant British Standards and Codes of Practice current three months before the date for return of tenders, except where a specific date of issue is stated. A certificate of compliance with the relevant British Standards shall be provided to the consultants at their request. In the event of a contradiction between this specification and any BS or CP this specification shall be followed and the consultant informed. All fees for testing and stamping shall be included in the tender.

1.3.8 ELECTRICITY SUPPLY

Unless otherwise indicated all apparatus and wiring shall be suitable for use with a 240 volt 1 phase 50 Hz, or 415 volt, 3 phase 50 Hz, earthed neutral system.

1.3.9 FUEL FOR TESTING

The client shall allowance for the cost for electricity, water and gas consumed during the process of change over, testing, commissioning and setting to work the new infrastructure services, up to handover to the client.

1.3.10 SPACE FOR PLANT

The Services Contractor shall ensure that all plant to be supplied by them can be installed in the available space and that there is adequate access to admit all plant to its position, and for maintenance. Unless otherwise stated all plant shall be delivered broken down for assembly on site and ease of installation through existing access points.

1.3.11 COMMENTS BY THE TENDERER

Any comments by the tenderer on the efficacy of the design, the availability of plant, materials and labour and the time required for the completion of the work shall be made when the tender is returned.

1.3.12 DRAWINGS - GENERAL

Unless otherwise indicated, the Services Contractor shall provide the following sets of drawings to the CA for approval and subsequently the number of sets of final issue drawings that will be required by the Client for distribution including those copies required by the design team. The Services Contractor shall be responsible for any discrepancies, errors or omissions therein:

In addition to paper prints, electronic versions of all drawings shall be provided and produced in AutoCad Release 2010 or later format. Each drawing shall be a stand alone drawing file and be able to be viewed as an individual drawing.

a) Three sets of "Builder's Work" drawings.

b) Three sets of detailed 'design to a scale that can clearly identify the design intent and co-ordination with the building and other services.

c) Three sets of detailed 'Installation Drawings' to a scale that can clearly identify the requirements of the Works and co-ordination with the building and other services.

d) Three sets of manufacturers' 'shop' drawings where required by this specification detailing dimensioned drawings of such items as air handling equipment, switchgear, electrical generator equipment, control panels, water storage/booster sets, pumping stations, ductwork and large items of equipment.

e) Three sets of "Record" drawings to a scale that can clearly identify the installation of all services. The "Record" drawings shall also be provided in digital CAD format with a separate file for each drawing along with a digital copy of all the information within the manual.

The first set of drawings as detailed in a) to d) above shall be sent to the CA and Engineer in such time as to meet the contract programme, allowing the Engineer reasonable time with a minimum of four weeks for examination and approval of the drawings.

1.3.13 BUILDER'S WORK DRAWINGS

Fully dimensioned builder's work drawings shall show all holes, foundations, bases, plinths, structures, sumps and holes required and the overall sizes and masses of the plant concerned. With the agreement of the consultant, holes, fixings, etc., other than in plant areas, may be marked out on site instead of on drawings.

1.3.14 INSTALLATION DRAWINGS

Fully detailed installation drawings shall be based on the tender drawings.

The drawings shall be to a scale not less than 1:50 unless otherwise agreed and be prepared in such detail as to enable the works to be installed. The pipework and electrical connections together with the setting out of all equipment shall be based on manufacturers "shop" or certified drawings.

1.3.15 VARIATION DRAWINGS

During the course of the works the services contractor shall maintain fully detailed records of all changes from their approved installation drawings or revised issue drawings to facilitate easy and accurate preparation of the "As Installed" drawings and to ensure that these drawings are in all respects a true record of the installation.

1.3.16 INSTALLATION MAINTENANCE

The Services Contractor shall allow for the first 12 months maintenance of the installation and systems installed in accordance with current British Standards and the manufactures instructions.

The 12 months maintenance period shall not commence until all Operating and Maintenance Manuals (O&M) have been completed and approved by the CA.

Upon completion of the first 12 months maintenance period the contractor shall carry a full service of the installations and systems as prescribed and detailed in the O&M manuals.

1.4 DESIGN CRITERIA

The tender and design and construct Services Contractor shall be solely responsible for the verification and completion of the design of the installation to the Client.

The specification and the drawings listed in Appendices comprise the concept and performance demands relating to the tenders functional design and engineers scheme. For the purposes of interpretation the Specification takes precedence over the drawings

The specification and drawings provide an indication of a number of capacities and sizes for certain aspects of the electrical installations. **The tenderer should note that the specification and drawing information is indicative of design concept only and that this in no way relieves them of their responsibility for the aspects of design and the satisfactory provision of a 'complete installation' that should include the number and sizes of equipment that will perform in accordance with the stated criteria**. Claims for additional cost, as a result of the tenderer failing to comply with this requirement, shall not be accepted.

1.4.1 ENVIROMENTAL CONDITIONS

1.4.2 DESIGN PARAMETERS

1.4.3 MECAHNICAL & ELECTRICAL

The electrical design and Installation by the services contractor shall comply this specification, drawings BS7671 current IET wiring regulations and current amendments.

Works in association with the fire alarm system shall be compliant with BS 5839 and current amendments.

Works in association with the CCTV system shall be compliant with BS 8418 and current amendments.

Works in association with the cold water service stall be compliant with BS 8418 and current amendments.BS EN 29453

1.5.1 HANDOVER PROCEDURE

1.5.1 OPERATING AND MAINTENANCE MANUALS

The Services Contractor shall:
Produce 3 complete copies of the O&M manuals for the House. The O&M manual for each discipline, i.e. electrical, mechanical, etc. shall comprise twelve sections prepared by the Services Contractor.

Submit the whole of the information to the C.A. correlated and indexed in relevant sections for his comments prior to the anticipated handover.

Discuss with the C.A presentation, script and content before preparation of the draft manuals.

Ensure that the whole of the O&M manual is available for use throughout the final commissioning period. It is appreciated that Section 11 for each manual will not be finalised until the commissioning period is completed since it is used to record data taken during that period. Provide this section complete to the C.A. prior to handover. Make available Section 11 complete with the results of pre-commissioning tests for verification by the C.A. at final commissioning.

Include the following sections in the O&M manuals for each discipline, i.e. electrical, mechanical, etc. shall comprise the following sections:

Section No.	**Title**
One	Introduction
Two	System Descriptions
Three	Operating Instruction
Four	Safety Information
Five	Plant/Equipment Inventory
Six	Lubricating Instructions
Seven	Repair and Maintenance Instructions
Eight	Spare Parts and Stores
Nine	General Information
Ten	Training and Demonstration Log
Eleven	Test and Commissioning Results
Twelve	Record Drawings

Prepare all sections in A4 size loose-leaf ring binders, with full content pages and front cover.

The O&M Manual and Record Drawings shall also be provided in digital format for the House as described in Section 1.3.12.

1.5.2 TESTING, COMMISSIONING, PROVING & DEMONSTRATION

The Services Contractor shall:

Fully commission and test all aspects of the services installations. Commissioning shall be in accordance with the Chartered Institution of Building Services and/or BSRIA Commissioning Codes.

Notify the CA in writing via the Main Contractor when, the works or parts thereof are ready for commissioning and testing.

Issue the CA, via the Main Contractor with list of remedial items to be completed. Make all specified tests to the satisfaction of the CA.

Should the tests fail to demonstrate that the plant and equipment are properly installed and functioning correctly, investigate the cause of the failure. Should this be due to incorrect or faulty work by the Services Contractor, or his suppliers, then without delay carry out such remedial measure and adjustments as may be necessary and repeat the commissioning and testing procedure to the satisfaction of the CA.

In the event of commissioning tests and inspections failing to meet the required standards, pay all abortive costs so arising incurred by the CA, or other parties. These shall be in accordance with the appropriate Professional Fee Scale.

Where portions of the work are commissioned and tested separately, upon final completion demonstrate to the CA that all the several portions are capable of proper simultaneous operation in accordance with the requirements of the Contract.

For the purposes of commissioning and testing of the installation provide all necessary skilled and unskilled labour and all necessary instruments and testing equipment.

1.5.3 INSTRUCTION & DEMONSTRATION.

The Services Contractor shall:

Allow for all necessary visits to site by equipment manufacturers representatives to ensure satisfactory completion and handover of the works.

Include for all necessary visits to carry out the following separate functions:

a) The initial setting to work and witnessing by the Services Contractors Commissioning Engineers (Pre-Commissioning).

b) The commissioning tests and examinations.

c) Special separate visits as necessary to train and instruct the client on the maintenance of equipment.

d) Special separate visits as necessary to train and instruct the client on the operation of the equipment.

No additional payment shall be given to the Services Contractor for any abortive visits that may be caused due to any failure in the programme.

SECTION TWO

MECHANICAL & ELECTRICAL SERVICES

PARTICULAR SPECIFICATION

AND

WORKMANSHIP & MATERIALS

2.0 INTRODUCTION

The project at Camden Stables is the relocation of the existing mechanical & electrical services from the Cuban building C façades in line with planning requirement as described within this specification.

This two storey building comprises Ground floor fitted out as a bar, café, and eatery area. The first floor being divided into restaurant, kitchen, new public toilets area, then being subdivided at the eastern end into public toilets and Cuban bars own split level male and female toilets, at each end a roof void mezzanine level have been introduced, one being a plantroom for the public toilets the other being an office/security area for the Cuban bar

Block "C" services have been designed as an extension to the works being carried out in Block "D" and as such will follow the same format, the existing externally mounted services are to be removed and run within the building fabric, the existing internal electrical services installed by the tenants shall remain.

There will be areas, due to planning constraints were it will not be possible to match existing services, this is especially prevalent with regards to surface run Foul Drainage, at present run in an "adhoc" installation.

The existing externally run gas main is to be rerun internally, and we have shown the optimum route and containment, however this is for discussion.

The contractor is to allow for the stripping out of all redundant materials associated with their works and there correct disposal.

It must also be borne in mind that the routing of said works will be within occupied areas and walkways and as such it will be necessary to work in close liaison with the Stables Management.

This specification shall be read in conjunction with the Architect's and specialist's drawings showing electrical services and the mechanical services drawings, all listed in Appendix 1.

Listed below are the particular works to the mechanical & electrical services to be included within the scope of the tender. The mechanical & electrical works shall comprise of the continued design, procurement, and installation, setting to work and testing/commissioning of services including the following:

Building C : Install new mains distribution system, LV & ELV containment, & water distribution system as per Optima drawing AP297/E/200 & E201.

The existing incoming mains supply and mains distribution board shall remain, additional electrical surge protection ESP & landlords 8way TPN MCB distribution board DBL and shall emanate from the existing mains distribution board, supplying external lighting, concession retail floor boxes and landlords ancillary services.

Block C 2 Compartment trunking shall extend externally to the underside of the existing bridge to Block B and rise to the first floor.

2.0 INTRODUCTION Cont'd…

To minimise shut down time, install all LV and ELV cabling within the new distribution system shall be ready for change over from existing system to new. This will require the assistance of specialist contactors for BT, Data, CCTV, Intruder and fire alarm. Also any other LV & ELV services found.

The services contractor shall systematically remove and re-connect each existing LV & ELV circuit, one at a time or in group in an agreed sequence with the client and retailer from the old system and connect to the new system of LV & ELV distribution.

The Cuban section contains gas fired kitchen catering equipment, and 2No mezzanine mounted gas fired boilers one serving the kitchen hot water demand the other the central heating

Mounted at mezzanine level the other end is a gas fired boiler serving the hot water demands of the public toilets.

The existing mild steel gas piped service is derived from the supply running under Block"A" walkway and is run to the building using the underside of the escape walkway, were it is run up the eastern external face of the building to enter the premises at high level into the public toilet plantroom thence on to serve the remaining gas appliances,

It was not possible to locate the exact positioning of the external water entry points so our proposals will indicate services fed from a new supply being brought into the building, with the entire existing water appliance being reconnected into this new system, the existing water incoming supply system can then be disconnected.

We are advised that the public toilets are to the refurbished, however at this point in time exact details are as yet unknown.

The existing roof has been felted over with apertures and roof lights installed, it is intended that the roof will be brought back to its original condition so that items not indicated on the as built drawing will need to be removed.

The existing first floor kitchen ventilation system, utilises 2No sheet metal ducts passing through the roof, one providing makeup air, the other extracting air from the kitchen hood, both of these installations terminate with weatherproof cowls, as it is intended that the roof is restored, this will entail removal of all roof penetrations not on the as built drawing and the additional provision of 2No new build Fleche's installed over the original now blanked off openings.

2No existing gas boilers are installed in the roof void office one feeding the heating requirements the other catering for the requirements of the kitchen both these discharges need to be reviewed.

At the toilet end of the building a further gas fired boiler provides for the hot water requirements. It is proposed to run new gas and water supplies into the building and at the earliest opportunity link into the existing internal supplies.

There is the possibility that a refurbishment of the public toilets will take place at the same time.

2.0 INTRODUCTION Cont'd…

New openings will be cut into the external walling to take the toilet extract systems these openings being encased as before with a cast iron hit and miss grille of suitable size.

The new public toilets shall replace the existing public toilets installed on a raised floor enabling water and foul services to be run to the external walling hence into the drainage system, sanitary ware and hot & cold water services section work is subject to design development and covered within the tender breakdown by a provisional sum.

The existing kitchen drainage appears to be a separate system falling towards the western elevation and is to remain as is.

The location of the existing public toilets in relation to the believed soil stack, (if it is a foul stack that the discharge is connected into,) means that a long horizontal external plastic soil range has been installed on the external walling ,this drainage float has also had a roof guttering down pipe connected into it.

At the time of the survey it was not possible to establish exactly what drainage connections are there, as access through the rear of the traders shop units was not available.

The services contractor will need to find a suitable foul and rainwater connection to accommodate the services.

There are options available

1. Find a suitable location to drop internally on the ground floor leave the building below ground level and excavate a drainage trench to a known foul drain.

2. Run internally at high level within the ground floor, use the existing stack if proved to be foul and break out to reconnect into a new Cast iron stack beneath the metal walkway.

3. Run a new horizontal float suspended from/beneath the walkway to a point just east of the entrance door were it would enter into the raised floor arrangement and also rise to the roof to form a vent pipe.

4. The existing 100mm rainwater main is also connected into the system and needs to be directed into a surface water system.

2.1 EXISTING MAINS DISTRIBUTION BOARD

The existing incoming mains supply and mains distribution board shall remain. Adjacent the existing mains distribution board the services contactor shall install electrical surge protection. Furse ESP 415 D1 Mains protector, 3 phase, VRMS 346-484V or equal.

The services contractor shall include for new labels, tidy up and distribution board charts to the existing distribution boards and electrical equipment within the existing mains cupboard.

2.2 ELECTRICAL DISTRIBUTION

A new landlords 8way TPN MCB distribution board DBL and shall emanate from the existing mains distribution board, supplying external lighting, concession retail floor boxes and landlords ancillary services.

2.2.1 CABLE SIZING

The Services Contractor shall install cabling generally as indicated on the mains schematic drawing.AP297-E100. T. All cable sizes are indicative only. It is the responsibility of the electrical Services Contractor that all cabling is compliant and designed within the current 17th Edition I.E.T wiring regulations and ammendments.

2.2.2 CIRCUIT LOADINGS

The design is based on a 3phase balanced load as far as reasonably practical. It is the responsibility of the electrical Services Contractor that all loads are calculated and a balance load is maintained, including any variations during the contract.

2.2.3 CIRCUIT PROTECTIVE DEVICES

Circuit protective devices shall be installed within distribution boards and shall consist of MCB's, RCBO's or RCD's as required by the current 17th Edition I.E.T. wiring regulations and current amendments.

2.3 SMALL POWER

The Services Contractor shall allow for the supply and installation of the external concession sockets and other service outlets as shown on the tender layout drawings.

Generally the external concessions small power shall be run in XLPE/SWA/LSF cable. The cable runs shall be straight with "slow" bends (as far as reasonable practical) within the proposed containment system as per Optima drawing AP297/E/200-T.

The position and types outlets are as indicated on the tender layout drawings.

2.4 LIGHTING INSTALLATION

2.4.1 GENERAL

The Services Contractor shall be responsible for the installation, wiring and commissioning of the external lighting to Block C front & rear.

2.4.2 LUMINAIRES BLOCK C EXTERNAL

For tender purposes the contactor shall include within their tender for the front & rear elevation an Iguzzini City Woody extended wall bracket mounted 26w LED fitting, with street optic, Code BB30 and extended wall bracket 5994. The contactor shall liaise with Iguzzini to ensure fittings are supplied with the correct drivers. The external lighting shall be supplied from the landlords distribution board within the new services cupboard DBL in 2.5mm 6491B single cables run in galvanised metal trunking and conduit, final connection from an individual klick plug and LSF flexible cable to the luminaire.

As detailed on Optima drawing E300 Links to web pages as follows:

http://products.iguzzini.com/citywoody_wall_mounted

http://products.iguzzini.com/5994

For tender purposes the contactor shall include within their tender for the front & rear elevation at low level Iguzzini Trick 3w LED. The external lighting shall be supplied from the landlords distribution board within the new services cupboard DBL in 1.5mm 6491B single cables run in galvanised metal trunking and conduit, final connection from an individual klick plug and LSF flexible cable to the luminaire. As detailed on Optima drawing E300 Links to web page as follows:

http://products.iguzzini.com/trick_washer

Note the Trick – Washer shall require an internal driver supplied separately.

LIGHTING CONTROL AND SWITCHES FOR EXTERNAL LIGHTING

The lighting shall operate from dusk to dawn photo cell and contactor arrangement within the service cupboard adjacent distribution board DBL.

2.5 SERVICE CUPBOARDS

2.5.1 GENERAL

The existing ground floor mains distribution cupboard shall be utilised for any ELV equipment such as BT, Data, CCTV, Intruder and fire alarm.

2.6 LV & ELV CABLING

To minimise shut down time, install all LV and ELV cabling within the new containment system to completion ready for change over from existing system to new. This will require the assistance of specialist contactors for BT, Data, CCTV, Intruder and fire alarm. Also any other LV & ELV services found.

2.6.1 REMOVE & CONNECT

The Services Contractor shall systematically remove and re-connect each existing LV & ELV circuit, one at a time or in group in an agreed sequence with the client and retailers from the old system and connect all existing functional services to the new system of LV & ELV distribution. the strategy & procedure shall be provided in a method statement that is to minimise the shutdown of the electrical supplies to be terminated.

2.7 MECHANICAL SERVICES BUILDING C

2.7.1 GENERAL

The project at Camden Stables is the relocation of the existing mechanical services from the Cuban building C façades in line with planning requirement as described within this specification.

This two storey building comprises Ground floor fitted out as a bar, café, and eatery area. The first floor being divided into restaurant and kitchen area, then being subdivided at the eastern end into public toilets and Cuban bars own split level male and female toilets, at each end a roof void mezzanine level have been introduced, one being a plantroom for the public toilets the other being an office/security area for the Cuban Bar.

2.7.2 COLD WATER INSTALLATION

It is intended that the existing water main run at high level on the first and ground floor faces of the building, will upon completion of the new water distribution installation be removed in total

A new water main adequately sized catering for the water demand of Blocks ”A” “B” “C” and “D” is to be connected into the existing water installation adjacent to unit 29 (the source of this feed /feeds could not be established at the time of our visit) and run as shown indicatively on Drawing No AP297-E-201-T.

The contractor is to allow for tracing back to source the incoming water supply , checking that the existing water main at its new connection point is capable of providing the volume of water required.

The services contractor shall run at high level within the roof void an insulated water main installation, supported on bracketary and encasement as provide by others, the installation being similar to that carried out in block “D”.

Each stable unit is to be provided with a valved and capped water supply for future tenant’s usage.

There are changes in levels of the roof line and the water services will need to correspond to the changes in levels.

COLD WATER INSTALLATION Cont'd..

Were indicated on the drawing, water pipework is to leave the high level containment and run to the internal face of the building to drop through the floor to high level below, the contractor is to provide his own containment and afford protection to the insulation for this part of the work.

It was hoped that the incoming water and gas services serving Block"B" from the new installation in Block"A" could be run beneath the vaulted slab and tight to the underside of the escape walkway from block "B" (suitability disguised), however in the event of the planners not accepting, The contractor is to base his proposal on dropping into the ground internally and trenching the services to a new incoming point within block "B" .

A similar scheme is to be adopted for Block"C"

All water pipework is to be insulated and pipework that is exposed to the atmosphere shall have frost protection afforded.

Connections being provided for future usage shall be valved, the discharge from which shall be provided with fittings for future pick by either Copper or Speedfix tube and fittings, and all the water installation shall be carried out to the relevant water byelaws and sterilized before being brought into service.

The contractor shall allow within this price for stripping out, and disposal of these temporary main materials.

All works related to the proposed the cold water installation shall conform to all relevant codes of practice. The system shall be chlorinated by a specialist contractor.

2.7.3 GAS SERVICES DISTRIBUTION

Upon completion of the new gas supply the existing gas pipework run beneath the 1st floor walkway and up the external faces of the building is to be removed and disposed of from site.

The existing gas incoming point adjacent to unit 29 is to be re- adapted.

From the gas solenoid valve a gas main of adequate size to serve the requirements of Blocks "B" and "C" shall be run up to roof level where it will turn and enter shop unit 29 rise again to the level of the newly installed electrical and water services and run parallel with them a minimum of 150mm away from electrical cables.

The services contractor is to provide his own support installation for the gas main installation.

It is envisaged that the new main will be Mild steel, jointed with appropriate fittings; however the contractor can provide alternative materials for consideration.

The pipework will be either factory finished or painted the appropriate colour for Natural Gas (Canary yellow) and labelled.

2.7.3 GAS SERVICES DISTRIBUTION Cont'd…

Any gas service required to be installed in the ground shall be suitably protected against corrosion

The gas main will leave Block "A" to serve Blocks "B" and "C"

The existing supply emanating from the incoming gas chamber that traverses the opening between unit 29 and the railway arches feeding the eateries beneath and adjacent to the arches is to be relocated further back so that it is not a visual impact.

It is envisaged that gas and water services on or over the flat roof adjacent to unit 29 will be supported either by "Bigfoot "or "Roof Runner" support systems.

All the gas reconnections, testing, purging and the re-establishment of trader's supplies, need to be co-ordinated with the "Stables management."

The contractor is to allow for any out of hours working needed for these many change overs.

Upon completion of the works the installation shall be tested then purged, and left ready for use by the tenant.

The gas installation shall be carried out to the relevant natural gas Codes of Practice, with the works being carried out by registered competent person/persons.

2.7.4 EXISTING AIR CONDITIONING UNITS

On the external south wall under the metal walkway Various split air conditioning condensers have been installed, these units belong to various tenants, it is proposed that these units are removed off the walling to be relocated by being hung off the metal walkway.

All associated control wiring and refrigeration lines will need to be re adapted and run on a system of supporting trays. As these units are the property of others, the contractor shall survey the present position and establish the current condition of said units accessing their suitability for relocation,

A provisional cost is to be provided for consideration once a survey has been carried as to proposed move.

2.7.5 SOIL & VENT PIPE INSTALLATION

The existing rainwater installation shall be replaced;

The existing PVC Guttering and pipework is to be removed and replaced with cast iron of similar section to building "D" The client is prepared to view other options i.e. Aluminium this will however need to be powder coated and approved with the architect.

The contractor shall include for a full drainage survey of what ground drainage connections are available establishing which are foul and which are surface water

2.7.5 SOIL & VENT PIPE INSTALLATION Cont;d..

The result of said survey could affect practicality of tender proposals.

All drainage attached to the external face of the building is to be of Cast Iron manufacture with all exposed fixing point painted to match. All drainage internal is to be PVC, changing to cast iron before passing through the external walling.

Expansion Joints to be provided as necessary. All internal exposed Plastic drainage is to be acoustically wrapped. Wire balloons to be fitted at roof level

All the above works are indicated on Drawing Optima drawing No AP297-M-201-T

Toilets Drainage Public and Cuban

There appears to be uncertainty as to what system the unauthorized, combined foul and rainwater installation connects into.

The contractor shall allow a provisional sum of £2000 for an underground drainage survey.

For the purposes of this tender the contractor is arrange for sections of the raised floor to be lifted and encased pipework exposed so that he can a full inspect and understand the installed drainage install.

The public toilet details added to the drawing indicating drainage proposals, are purely indicative and a guide, as an as Installed survey has not been carried out.

The Existing Drainage facilities within the Cuban Bar, comprises public & restaurant toilets, kitchen and counter drainage.

This drainage is collected with the baulk of it discharging into a single 100 dia ground level socket to connect into the underground drainage systems.

The existing system has been added too in an adhoc fashion and even has a large rainwater pipe coupled in, as there appears to be no suitable rainwater ground connection in the near vicinity It's therefore important that a full survey is carried out of both the underground surface and foul water systems. This will out of necessity need the building external perimeter to be clear at ground level, as numerous small stallholders back on to the walling stopping a visual inspection being carried out and these areas need to be clear.

A full CTCV survey of the surrounding area underground drainage services is essential together with dye testing to establish that the correct service is entering the correct system.

The existing public toilets are installed on a raised floor; this enables the services to reach the external walling.

This raised flooring will need to be kept, replaced or modified for the new system to function.

2.7.5 SOIL & VENT PIPE INSTALLATION Cont'd..

It is not known how the existing toilet drainage has been routed, within this floor void; let alone what obstruction could be encountered due to the nature of said floor construction. The floor void we consider is not of sufficient depth to allow large foul drainage pipes to cross and maintain a suitable fallation.

No plastic drainage shall pass through the external walling, and any plastic pipe run to outside shall change to cast iron, within the inside of the building, before penetrating the external walling.

The longest internal run will require venting and as no penetrations of the roof shall be allowed.

The contractor shall allow for a range of anti-syphon pipes combined joining the rising stack at high level externally, only as a last resort shall Air admittance valves shall be allowed.

This proposal utilises an increased size drainage pipe acting as a float picking up appliances, and discharging externally into a new drainage socket at ground level The new ground socket will need to be connected into the existing foul underground drainage system.

The existing Kitchen drainage would be adapted and connected into the existing pipework. Pipework upgraded externally to cast iron.

All internal drainage should be in Plastic solvent welded, laid to fall, fire collars fitted where appropriate , all pipework shall be provided with rodding /access points and all shall be suitability bracketed.

Before exiting the building the plastic pipework shall change to cast iron,

The cast iron pipework style shall be similar to Block "D" with black bolts

2.7.6 RAIN WATER PIPES

The existing rainwater pipework on the south elevation will need to be evaluated as to whether it goes into foul or surface water drainage,

Our proposal is that the rainwater stack at the eastern end be relocated as shown on drawing AP297-E-300-T, however it has to be established that there is a suitable ground socket to couple into with in the vicinity if this is not the case then a new buried drain will need to be brought to the new position.

The same applies to the western end the existing rainwater dropper shown passing over the window This will need to be repositioned and a possible need ground socket complete with associated drainage provided.

Drainage on the northern elevation is difficult, our option for tender is that the wooded steps at the edge nearest to the building wall shall be cut out down to the slab level, a new float on plastic run on the slab following the contours down to an "Aco" drain at ground level coupled into the existing surface water drainage. This float will pick up the 2 no Cast iron rain water droppers, the float should he encased in reclaimed sleepers or similar to disguise.

2.7.6 CUBAN KITCHEN EXTRACT

It is proposed that the kitchen hood discharge ductwork at the moment passing through the roof terminating in a cowl, be made redundant .

A new discharge is proposed; this will run within the kitchen, breaking out into the 1st floor restaurant at high level and discharge to atmosphere via a purpose made fleche at ridge level.

Note! The existing Ridge timber passing through the opening is not to be cut, ductwork is to divide to avoid it.

This new routing will increase the frictional resistance the fan will need to overcome; therefore the existing fan will need to be checked out, both as to its condition and suitability for this increased duty.

Should the existing fan prove unsuitable a new bi -ficated fan of suitable capacity shall be installed.

As no access at the time was available to the void above the kitchen hood it should be assumed that the existing fan will be directly coupled to the hood with minimal header ductwork.

The contractor shall access the void and establish what modification will be needed to enable the discharge to run horizontally to its break out point ,he will also establish whether building control will require any form of fire cladding to be applied to the ductwork.

The Optima BES Ltd tender are indicative only and will require the services contractor to site survey and produce detailed design , calculations, liaise with the architects, building control and local planners.

The contractor it to ensure that the new ducted arrange is provide with adequate access points for cleaning purposes.

The contractor is also to advice on electrical loading to the electrical contractor.

2.7.7 TOILET EXTRACT

The existing toilet extract systems are to be renewed either by separate systems or by combining public male and female unit as they are on the same level, but retaining separate systems for the Cuban bar, should the combined option be chosen the contractor is to insure that the necessary discharge free area will be available using cast iron hit and miss grilles, it is assumed that control of said systems would be by timer to suit opening hours.

Toilets at the eastern end of the Cuban Bar, Both public and private toilets are situated at the eastern end of the building on both the 1st and mezzanine level floors.

The Cuban bar gent's toilet is situated in the roof apex on the mezzanine floor, this toilet has a roof/sky light which will be removed and not replaced, The Cuban bar female toilets being on the same level as the public toilets.

2.7.7 TOILET EXTRACT Cont'd..

It is proposed to mechanically ventilate the toilets and as detailed each toilet facility will have its own installation however should the contractor feel that cross talk attenuation can be satisfied.

The public toilets together with the Cuban female toilets shall be combined using a single unit to cover the male and female areas, The contractor should consider using duplex unit with automatic change over complete with control panel and indication visible in the toilet lobby area of fan failure.

Again all systems will discharge through the external walling behind a Group of cast iron architectural hit and miss grilles of a size large enough to accommodate the discharge airflow.

The installation shall consist of Spiral ductwork trunk runs with short flexible branch connections to "Punka grilles" installed over each WC, dampers shall to be provided to ensure that the installation can be correctly balanced the system shall be under time clock control.

2.9 GAS BOILERS

Blocks "C" has balanced flue boilers to provide for their Heating and Hot Water requirements all boilers discharge either through the roof or external walling, due to planning constraints it is not certain that this arrangement as installed will be allowed therefore discussions will be needed with the planners.

The contractor should be aware that at the public toilet end a further Fleche will be installed and it is possible that this unit can be divided as a flue inlet and discharge point as per sketch subject to Gas Regulation approval, however as this will entail additional runs of flue, new gas boilers capable of dealing with the longer flue run will be required.

Possible solutions:

1. Black powder coated roof terminal as unobtrusive as possible, the more it can look like a soil vent termination .

2. Discharge through end walling but using roof barge boards to partly disguise.

3. Fabricate/ Form small lead covered dormers.

4. Flue dilution systems, this will also require inlet and discharge openings in the external walling or dormers on the roof could be disguised with banks of hit and miss grilles in walling and louvres in dormers.

5. Any of these thoughts if acceptable will need to be confirmed as being permitted by the current gas regulations.

6. All the above dependant on the whim of the planners.

All new works shall be carried out to a similar style to that already carried out in Block"D" and shall be installed to all relevant regulations and manufactures recommendations.

2.9 TESTING AND COMMISSIONING

The systems shall be fully tested and commissioned by the system supplier and certified for compliance with all relevant standards. The commissioning certification shall also include detailed test verification in writing of the system programmed operational functions, together with a demonstration to the client's representative.

APPENDIX A1

DRAWINGS

A1.1 CONTRACT DRAWINGS

A1.2 RELATED DRAWINGS

APPENDIX A1: DRAWINGS

A1.1 SCHEDULE OF TENDER DRAWINGS

DRG NO	DRAWING TITLE	Rev	SCALE
	Optima CAD Drawings with Electrical Service Equipment Positions and Principle Service Routes.		
AP297-E-100	*Building C Existing Services on Elevation Survey*	T2	1:50
AP297-E-200	*Building C Electrical Services*	T2	1:50
AP297-M-201	*Building C Mechanical Services*	T2	1:50
AP267-E-300	*Buildings C Proposed Services on Elevation*	T2	1:50

All above issued as Rev T, T1 or T2 as noted for tender issue C is contract issue

A 1.2 LIST OF RELATED DRAWINGS

Architect: As 'Heritage Architects' drawings with Main Contract Documents.

APPENDIX B

TENDER FORM

B.1 **TENDER SUMMARY**

In order to assist in evaluation of your tender please provide a detailed breakdown of the costs for Camden Stables Block C as follows:-

B.1.1

	MECHANICAL SERVICES	
(a)	Preliminary Matters	£
(b)	Meeting Requirements of the Health and Safety Plan (CDM)	£
(c)	As Fitted Drawings and Manuals	£
(d)	Builders Work in Connection	£
(e)	Building C Cold Water Main	£
(f)	Building C Gas Services Distribution	£
(g)	Soil & Vent Pipe Installation Includes New Public Toilets	£
(h)	Rain Water Pipe Installation	£
(i)	Cuban Kitchen Extract	£
(j)	New Toilet Extract Systems	£
(k)	Gas Boilers	£
(l)	Sterilisation of New Water Services	£
(m)	Testing & Commissioning	£
(n)	Contingency	£ 10,000.00
SUB TOTAL		----------

	ELECTICAL SERVICES	
(a)	Preliminary Matters	£
(b)	Meeting Requirements of the Health and Safety Plan (CDM)	£
(c)	As Fitted Drawings and Manuals	£
(d)	Electrical Main Distribution & Electrical Sub Main Distribution Block C	£
(e)	Small Power Installation Block C	£
(f)	External Lighting & Emergency Lighting Block C	£
(g)	Containment Block C	£
(h)	Service Cupboards See Provisional Sums Below	
(i)	LV & ELV Cabling & BT,CCTV, Intruder Fire & Data Block C	£
(k)	Removal of Redundant Services Building B	£
(l)	Testing & Commissioning LV & ELV, BT,CCTV, Intruder Fire & Data Block C	£
(m)	Contingency	£ 5,000.00
SUB TOTAL		----------

B.1.2 PROVISIONAL SUMS

Relocate Existing A/C Condensers Off Wall	£5,000.00
Drainage CCTV Survey	£2,000.00
New Public Toilets Electrical Services	£8,000.00
New Public Toilets Sanitary Ware	£10,000.00
New Public Toilets Hot & Cold Water Services	£10,000.00

TOTAL FOR MECHANICAL & ELECTRICAL SERVICES **£_____**

Signed : .....

Position .....

Company : .....

Date : .....

B.2 DAYWORK DETAILS

State percentage additions to be added to the net cost of variations carried out under daywork instructions inclusive of profit, overhead charges, insurance's, supervision, employers liability, provision of tools, plant and scaffolding and all other incidental expenses and "on costs" including all taxes and discounts, including that to the Main Contractor where appropriate:

(i) Labour

For which the net cost will be the actual net sums paid to work people inclusive of guaranteed overtime, travelling, holidays with pay and employers contributions for National Insurance, always provided that all such do not exceed the sums generally payable in the district concerned .....%

(ii) Materials

For which the net cost will be the actual net sum paid to suppliers after deducting discounts other than that for early cash settlement .....%

(iii) Fares and Allowances

For which the net cost will be the actual net sums paid to work people .....%

(iv) Sub-contractors

For which the net cost will be the actual net sum paid to approved Sub-Contractors after deducting all discounts.....%

Note: Work people means all site and/or shop workers but excludes supervision, draughting, store, secretarial and similar personnel who are to be included in the overhead charges.

Signed : .....

Position .....

Company : .....

Date : .....

B.3 TRADESMEN, RATES AND HOURS

The tenderer is to state the various categories of tradesmen they would employ, the actual hourly rates payable and as would be applicable for net daywork costs, the actual net hours the trades people would be engaged on the works unless specifically working outside normal hours and the rates and hours applicable to authorised overtime. It will not be sufficient to state "in accordance with national agreements", etc., unless a full copy of such agreement is submitted with the Tender Documents.

The tradesmen are to include foremen, charge-hands, fitters, welders, electricians, jointers, mates, apprentices, labourers, etc.

I/We would employ the tradesmen for whom the current actual hourly rates are:

	Tradesmen	**Hourly Rate (£)**
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

My/our tradesmen would normally be engaged on the works and would require additional payment for any authorised overtime I/we are instructed to work as follows:

Day	**Monday to Thursday**	**Friday**	**Saturday**	**Sunday**	**Bank Holiday**

Normal Hours - as included in tender

From					
To					

Overtime Hours at:

Time + ¼					
Time + ½					
Double Time					

Note: Insert 24 hour clock times to give full 168 hours per week

Signed : .....

Position .....

Company .....

Date : .....

B.4 ALTERNATIVES

The tenderer is to state any alternative material they would wish to put forward, with the cost offset on his tender, particularly for any items mentioned in this section or elsewhere but is invited to mention any item that would lead to mutual advantage.

The alternatives I/we propose are:

Item	**Increase/Decrease (£)**

Signed : .....

Position .....

Company .....

Date :.....

B.5 DETAILS

The tenderer is to state in this section:

Reservations

In the preparation of my/our tender the following is my/our interpretation of the information submitted to me/us and/or the reservations I/we have are:

.....

.....

.....

.....

.....

Sub-Letting

The specialist firms that I/we propose to employ are:

.....

.....

.....

.....

.....

Site Electricity

The electricity supply that I/we would wish to have made available to us is:

Number of phases .....

Capacity - amps per phase .....

Signed : .....

Position .....

Company .....

Date :----------