Rochford District Council

SERVACCOMM
MODULAR BUILDING SOLUTIONS

Rochford District Council

Waste Depot Yard

Office/Welfare Facility

Servaccomm

Contractors Proposals

Technical Submission

Version 1.0

Rochford District Council

SERVACCOMM
MODULAR BUILDING SOLUTIONS

VERSION HISTORY

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	A.Fox	16 July 2015			Tender submission

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1. INTRODUCTION

Servaccomm has extensive experience providing modular off-site buildings to all sectors having provided schemes both directly to local authorities and working with main contractors to deliver hybrid solutions. Servaccomm prides itself in developing excellent working relationships with all its clients and an enviable reputation for delivering complex projects.

A critical factor for Servaccomm's success is the fact that we are first and foremost a manufacturer. This enables us to quickly and efficiently convert your requirements into a permanent building. Our team is committed to working with you to ensure a smooth delivery of the finished product, which we believe will be on time and on budget.

Our experience in this market ensures that we have a full understanding of the standards required to provide a fully compliant solution to any employer's requirements.

Servaccomm places the Health & Safety of its staff and its clients above all other considerations in its project planning. It is one of the few manufacturers in this industry that is accredited to BS OHSAS 18001 which is the recognized safety standard. Servaccomm is also accredited to ISO 9001 the quality standard and ISO 14001 the environmental standard.

Off-site manufacture means our buildings are produced in a controlled environment enabling us to achieve consistently high standards and tolerances. Continuously monitoring the production process ensures efficient use of materials, minimising waste, but maximising efficiency and quality. Servaccomm have adopted a policy of continuous improvement with all employees, suppliers and customers being actively involved in the development of our products. Client feedback and satisfaction is critical to this and it is a significant indicator in our ISO 9001 quality process.

To ensure we achieve best value we engage with our supply chain throughout the costing process ensuring they are fully aware of the specific design requirements as well as the client's expectations. Our in-house design team also engage with external consultants who provide specialist independent advice in order to achieve the optimum design on structural and acoustic matters.

All our consultants, sub-contractors and suppliers are assessed and vetted inline with our ISO 9001 process and are checked on an annual basis. Their H&S records, quality standards, financial stability, capacity and capability are all checked and monitored. This is a rigorous process, but it assists us in achieving our standards and maintaining our various accreditations. The great majority of our consultants, sub-contractors and suppliers have worked with us for the last 15 years.

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2. PROJECT QUALITY MANAGEMENT OVERVIEW

ORGANISATION, RESPONSIBILITIES, AND INTERFACES

Name	Role	Quality Responsibility
John Gilfoyle	*Managing Director*	*Project Lead*
Mike Marriott	*Special Projects Director*	*Design lead*
David Anderson	*Construction Director*	*Manufacturing and Delivery*
Simon Dennis	*Commercial Director*	*Cost Control Q.S.*

TOOLS, ENVIRONMENT, AND INTERFACES

Tool	Description
ISO 9001	*Quality Management System*
Manufacturing Reports	*Measures defects and downtime*
Project Specification	*Describes materials and defines commitment*
Drawings	*Documented on drawing project drawing register*
Program	*Defines timescales and identifies crucial milestones*
Customer Feedback	*Closing the Loop and ensuring C.I.*

2.1 PROJECT QUALITY MANAGEMENT

Quality Management involves planning, doing, checking, and acting to improve project quality standards. At Servaccomm we split Quality Management into three process groups: a) Quality Planning (QP), b) Quality Assurance (QA) and c) Quality Control (QC). The following sections define how this project will apply each of these practice groups to define, monitor and control quality standards.

2.1.1 QUALITY PLANNING

Identify which quality standards are relevant to the project and how to satisfy them. Identify and define appropriate quality metrics and measures for standards for project processes, product functionality, regulatory compliance requirements, project deliverables, project management performance and documentation. Identifying the acceptance criteria for project deliverables and product performance.

2.1.1.1 DEFINE PROJECT QUALITY

Quality standards are to be benchmarked against predefined and agreed samples. In the event of a situation where there is no sample available or agreed, then the quality standard is defaulted back to the company's normal quality standard. Specifications and drawings are to be agreed and frozen at least two weeks prior to commencement of manufacture to allow effective and efficient design and procurement. All processes used in the implementation of this project are documented in the company's ISO 9001 Quality Management System.

2.1.1.2 MEASURE PROJECT QUALITY

During manufacture key stages of production are identified on Q.C. sheets before passing to the next stage. The sheets must be signed by the operative responsible for the works and the supervisor responsible for the activity. Sheets will be used to identify rework and downtime analysis is conducted on a tracker to look for trends.

Pre-delivery inspections are carried out prior to units leaving the factory and again on site to identify any damage which may have occurred on route. Sub-contractors used on site are pre-vetted and approved and are measured on Quality, H & S, reliability and value.

Prior to offering the building to the client the company's representative will initially snag the building, record and rectify any faults. This process will start a minimum of one week prior to offering the building to the client.

All defects are tracked to establish patterns and identify process or product improvement. Reported defects after hand over will be prioritised on an essential, non-essential basis. Essential rectifications (those which could present a threat to the health or safety of individuals within the building) will be dealt with within 1 working day (24 hrs) non-essential work will be completed within 1 week (5 working days).

2.1.1.3 COMMUNICATION

Schedule weekly project team meetings at the start of the design process and continue through to handover. We will identify milestones which are critical to the success of the project and monitor them.

2.1.2 QUALITY ASSURANCE

Documented process and flow charts ensure that every task carried out in the factory and on site is fully designed and tested. Each operation is documented and a visual quality bench mark has been attached to assure that each process is repeated using the same material in the same sequence using the same tools.

2.1.2.1 ANALYSE PROJECT QUALITY

Data is collected from both the factory and site and put onto a tracker. This helps provide trend information which in turn, provides information to enable the company to either provide additional training or change process or products.

2.1.2.2 IMPROVE PROJECT QUALITY

Identify ways of doing things better, cheaper, and/or faster. The company operates an active continuous improvement program which is supported by all our staff and operatives using Kaizan tools to develop and improve process, products and project.

2.1.3 QUALITY CONTROL

All the company projects are subject to third party verification. The design team is regularly trained to ensure they are aware and conversant with the latest regulatory requirements. The company provides access to a technical online library to ensure uncontrolled documents can not be used.

The company is a full member of the trade association and takes full advantage and benefits from that membership assuring that stats can be measured and bench marked against like organisations.

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3. SPECIFICATION

3.1 STRUCTURAL DESIGN

The structure is designed and constructed in accordance with the following standards and technical references:-

- BS5268 Part 2 'Structural Use of Timber'
- BS449 Part 2 'Structural Use of Steelwork in Buildings'
- CP3 Chap. V Part 2 'Wind Loads'
- BS6399 Part 1 'Design Loads for Building'
- BS648 'Dead Loads'
- Generally to Current Building Regulations.

The structural design of the building has been undertaken by our Structural engineers

Note the SPECIFICATION: MBS/RM 875/TF is based on a Timber Frame Building; please note we only manufacture a steel framed building!

3.2 DESIGN LOADS

Floors 5Kn/m2
Roof To Relevant British Standards
Wind Designed to site specific criteria
Height 2.4mtrs

3.3 INSULATION VALUES

Walls 'U'= 0.28
Roof 'U'= 0.20
Floor 'U'= 0.22

3.4 DESIGN LIFE

The units are designed as permanent facilities, and will have a design life of at least 50 years.

3.5 DESIGN PRINCIPLES

Constructed using an offsite manufactured structural steel frame, the principles of which will be based on a free spanning frame this will provide flexibility in terms of legacy use the only internal load bearing elements are formed around circulation routes none of the other internal walls are load bearing, this allows simple reconfiguration should there be an educational need to alter spaces at a later date. The structural ceiling height is 2400mm.

3.6 FABRICATION

1.9.1 FLOOR CONSTRUCTION:

Floors will be constructed from cold formed steel channels spanning the length of the units between structural columns. Main channels are S355gr 300 x 75 x 19 x 4mm ITLC with 120 x 50 x 3mm RHS Cold formed floor joists at 406mm centres welded between. Insulation is provided by 40mm celotex & double layer of ecobrite and a series of unvented airspaces with surface areas having low emissivity surfaces. The Final deck is 18mm plywood.

1.9.2 COLUMNS

Columns at the outer corners of the units will be 100 x 100 x 8mm SHS internal props to limit the span of the beams will be incorporated into the internal partitions and will be formed using 80 x 80 x 8mm SHS

1.9.3 ROOF CONSTRUCTION

305 x 90 x 19 x 4mm ITLC Cold formed Steel Channel edge beams with steel angle tie bars. Roof beams span between the structural. The roof is created using timber joists with diminishing firings to create a single direction fall. Rainwater goods are maintenance free PVC.

3.7 EXTERNAL WALL CONSTRUCTION

Plasterboard is to provide the protective layer in terms of fire resistance (30min)

- 1 Layer of 12.7mm Lafarge Cream Plaster Vinyl Faced plasterboard
- 44 x 44 Battens at 600mm ctrs to create service route
- Layer of Ecobrite foil unbroken to form Vapour control layer
- 1 layer of 120mm x 35mm Timber stud uprights
- 1 layer of 100mm Rockwool Flexi-Slab between timber frame
- 9mm Plywood
- See item 3.15 for external finishes

3.8 ROOF

- 1 Layer of 12.7mm Lafarge Cream Plaster Vinyl Faced plasterboard
- 12mm OSB
- Apollo Low emissivity foil
- 70mm Celotex & 140mm fibreglass Insulation
- Firestone EPDM Roof Blanket

3.9 FLOOR

- 40mm Celotex insulation suspended on 2 layers of Apollo Ecobrite Foil
- 18mm Plywood
- See item 3.13 for floor finishes

3.10 INTERNAL WALLS

- 1 Layer of 12.7mm Lafarge Cream Plaster Vinyl Faced plasterboard

- 70mm timber stud with verticals at 400mm ctrs
- Acoustic insulation 60mm 23kg/m3 (between frame)
- 1 Layer of 12.7mm Lafarge Cream Plaster Vinyl Faced plasterboard
- 150mm high Postformed laminated splashbacks to WHB's

3.11 JOINERY

3.11.1 DOORS

Koto veneered faced doors fire designation to suit application but as a minimum all internal doors to be solid core rated FD30 Doors are hung in White PVC Frames to suit door & double vision panels in Pyroshield glass to part M 2004

3.11.2 SKIRTING & TOP COVE

50mm 2 part plastic skirting to carpet tiled areas & 100mm high Black PVC skirting to non-slip vinyl areas, 50mm 2 part plastic top cove to ceiling

3.12 IRONMONGERY

SAA 19mm Round bar furniture with 5 lever mortice locks to external door & 3 lever mortice loads lock to internal doors, Bathlock with 19mm round bar handles, disabled facility door furniture, SAA Kick Plates 150mm deep, Briton Door Closers

3.13 FLOOR FINISHES

Polysafe Non Slip Floor Coverings to Welfare Unit, Corridor, Server/Cleaning Utility, Store, Toilets & Shower Areas
Hi-Tech Carpet Tiles to Training, RDC Super Room, Supervisors Office, General Office & Managers Rooms

3.14 FIXTURES & FITTINGS

- 150mm high Postformed laminated splashbacks to WHB's
- SAA Hat & Coats Hooks & Toilet Roll Holders to WC's
- 350mm x 250mm Mirrors to Standard WHB's
- 900mm x 400mm Mirror to Doc M WC

3.15 EXTERNAL CLADDING

The building will be clad with Plastisol bonded to Plywood c/w Wrapped 'H' Sections with Plastisol Fascia & Plinth

3.16 WINDOWS & EXTERNAL DOORS

3.16.1 – Windows – Aluminium Powder Coated D/G FOV Window c/w Restrictors, Lockable Handles & Trickle Ventilation (900mm x 1000mm Clear, 900mm x 400mm Obscure Glazing)

3.16.2 – External Doors – External Paint Finish solid core door c/we softwood timber door frame & duraflex cill

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4. M & E SERVICES

4.1 ELECTRICAL

General

HAGER distribution is fitted as standard in our units. Should this equipment not be approved by the client, it may be necessary to increase our quotation, for the preferred option.

Supply Parameters & Earth Bonding

The electrical design assumes that the external supply to the proposed modular building complies with BS 7671:2008 IET Wiring Regulations 17th Edition; inc Amendments, and all statutory instruments (i.e. Electrical Safety, Quality and Continuity Regulations 2002.)

It has been assumed for design purposes that the prospective short circuit fault current will be less than the 6kA breaking capacity of the circuit breakers installed within our consumer units.

As no supply data was available at tender stage, we have assumed that the installation will be energised by a new metered TN-S/TN-C-S (PME) supply according to the loading of our building only.

Prior to commencement of manufacture confirmation of the supply parameters will be required to enable us to correctly size the main earth bonding to incoming services.

In the event of the characteristics differing from the above then extra equipment/larger bonding conductors may be needed. If this is necessary then extra costs may be incurred.

2014 Building Regulations

This quotation is prepared with compliance towards the current Building Regulations in mind, by the use of LED lighting and separate metering to Air Conditioning. Should additional allowances be required (i.e. Daylight dimming to specific lighting and/or separate metering to lighting etc.), please inform us of the additional requirements prior to final submissions and suitable adjustments to the design and quotation can be made.

Wiring

The wiring will be done in the factory using PVC insulated PVC sheathed (twin and earth) cable contained within the fabric of the building.

Design specification, board schedules and drawings can be made available after an order has been placed.

The routes of cables can be discussed should there be any particular concerns.

Lighting

The lighting proposed is deemed fit for use and will achieve lux levels laid out within the CIBSE guidelines. This however is not a fully LG7 lighting scheme

Emergency Lighting

Included.

Small Power

Small power will be terminated in cavity boxes.

BS7671 Chapter 543.7 compliance for the computer areas.

Electric Heating

Included to the toilets, store and showers

Ventilation (Extract Only)

Included to the toilets, store, utility and welfare room.

Three Compartment Trunking

Included to the three walls of the offices, and two walls of the RDC super room and training room.

Earth bonding

All earth bonding will be done to the current IEE 17th Edition Regulations. BS7671:2008. Please see the above on supply parameters for more information.

Incoming Supply

Included – Subject to existing supply being sufficient for the new build

Site-Work

Included one visit only

Testing & Commissioning

N & P Electrical Limited will carry out initial verification at the factory, and provide a dead test certificate. Final tests must be completed by persons undertaking site-works, this includes emergency lighting tests. One visit only

Outside Lighting

None included. Emergency lighting only.

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4.2 AIR CONDITIONING SYSTEM

We have based our design on the above drawing and current CIBSE guidelines.

Please note that this quote has been processed on the basis of the information provided. This quote does not constitute a final design until such a time as the client has approved its content in writing.

System Description	Included	Number	Notes
Individual Split	Yes	10	
Wall Mounted	Yes	10	
Infra-Red Remotes	Yes	10	
Condenser Brackets	Yes	10	
Condenser Cages	Excluded	N/A	

The installation will be completed using a combination of 10 Individual split (10 indoor and 10 outdoor units) Fujitsu Inverter wall mounted units. Each unit will be complete with its own separate hand held remote controller incorporating a 24 hour timer facility.

Pipe work installed will be directly through the external wall to the outside of the building and down to ground level within a bespoke containment system, or dropped down and ran under the building to the outside. Any exposed internal pipe work will be contained within a 70mm white trunking system (trap hatches may be required). The external unit will be placed outside directly below the internal unit. The outside condensers will be mounted using a bracket at low level.

For the purpose of providing this quotation we have assumed that all condensers will be positioned as close to the internal unit as possible. Any deviation from this may increase the internal unit size, pipe run length and overall cost.

It is important that full vehicle access around the perimeter of the building is made available to aid the installation of units at high level if required during the installation. N and P Climate Control Ltd cannot be held responsible for an installation that is incomplete due to restricted access.

Areas Excluded

WC's, Showers and Cleaners Store

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4.3 PLUMBING

Shower & Urinals

7kW Electric Showers c/w 760mm x 760mm Shower Tray & Liner (2No)
Standard WHB c/w Hot & Cold Taps (2No)
Instantaneous Water Heater (1No)
Standard Urinals (2No)
Plastic Auto Cistern (1No)
Cistermiser (1No)
28mm Stop Tap c/w PRV & DCV (1No)
40mm Waste Outlets (2No)

Standard WC's

Standard WC's (3No)
450mm WHB's c/w Hot & Cold Taps (3No)
Instantaneous Water Heaters (2No)
Single Soil Stack (1No)

Accessible WC & Shower

Standard Doc M WC c/w Blue Rails & Spray Mixer Taps (1No)
Level Access Disabled Shower Cubicle c/w 8.5kW Triton Care Electric Shower (1No)
AAV (1No)
40mm Waste Outlet

Server/Cleaning Utility Store

Cleaners Sink c/w Hot & Cold Bib Taps (1No)
Instantaneous Water Heater (1No)
40mm Waste Outlet (1No)

Site Works

On Site Works, Connections & Chlorination

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5.0 GROUNDWORKS

Prelims

Site mobilization ofr Heras Fencing, machinery etc for duration of works

Management to include preparing RAMS

HERAS security fencing

Welfare Facilities

Note we have not included for site Investigations/WAC Testing & Hoardings

Foundations

Design of Foundations

Reduced dig to formation n.e 500mm

Stone oversite to building footprint

Pad foundations c/w plinths n.e 1mtrs deep

Underfloor ventilation

Note no allowance has been made for removal of existing foundations/drainage, no allowance for underground onstructions & all excavated materials is classed as 'inert'

Drainage

Rainwater – Drainage in trenches connection RWP to existing n.e 10mtrs from new build – note all piprwork to be uPVC

Foul - Drainage to connection SVP to existing n.e 10mtrs from new build – note all piprwork to be uPVC

Reinstatement

Reinstatement ot building perimeter n.e 1mtr width

Service Connections

Electrical connections to existing supply subject to sufficient capacity

Water connections to existing supply subject to sufficient capacity

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6.0 QUALIFICATIONS & EXCLUSIONS

6.1 QUALIFICATIONS

Note the SPECIFICATION: MBS/RM 875/TF supplied at tender stage is not Part L Compliant (due to inclusion of electric heaters) but I can confirm our tender return is fully Compliant with the current Building Regulations which was revised early 2004

Workshop will need to be out of action whilst the installation of the building is being carried out

Our cranage company will inform Southend Airport before commencing installation as to the height of the jib

Client will need to confirm the existing electric & water supply are suitable in capacity for the new building

Car park at site area to be clear of all traffic for the day of installation

Client to organize letter drop to local area to ensure access road to be clear opposite & each side of site entrance

Client to confirm ground stability as no site investigations have been carried out at this stage

No allowance for underground obstructions

All excavated materials are classed as 'inert'

All delays will be documented and charged accordingly

All works will take place during normal office hours Monday to Friday 8am to 5pm

GENERAL NOTES

Our Standard terms and conditions of sale are available on request.

Title of goods remains with Servaccomm Redhall Ltd until full payment has been received.

V.A.T is not included in the above figures and will be added at the appropriate rate if and when applicable.

The price quoted assumes adequate access and hardstanding up to and around the building for any mechanical plant or scaffolding that may be required to complete the installation.

PAYMENT TERMS

We will invoice 14 days prior to delivery of building which will be the Ex-Works & transport value. This is to be paid on the scheduled day of delivery. The Installation costs are to be paid 30 days from practical completion. Any extras are to be paid within 30 days from the date of invoice.

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6.2 EXCLUSIONS

Site Inductions

Demolitions & removal of existing foundations/drainage by others

Removal of Overhead power cable to be removed whilst the installation of the building is being carried out

Site Investigations/WAC Testing

Ground Protection

Trackway

Traffic Management/Road Closures

Enabling Works

Cold water storage tanks, water booster pumps

Radon Barrier

Hoarding

Steps, ramps and handrails

Paving, footpaths, tarmac

Forming access to site including temporary roads and remove any overhead cables

Considerate Constructors Scheme

Permanent Roof edge protection

Fall arrest system

Canopies

Brise Soleil

Notional boundary requirements

Secure by Design

Suspended Ceiling

Interactive Whiteboards & Projectors

Air Conditioning Condenser Guards

Ventilation System

Sprinkler System

Photo Voltaic

Lightning Protection – Please note if this is deemed required due to insurance reasons it will be an extra cost.

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Data Installation

Door Access Systems

CCTV

BMS System

Fire Extinguishers

Fire / Intruder Alarm

All internal furniture and lockers

External Roller shutters to doors and windows

Any fees in association with Planning and Building Control applications will be the responsibility of the client

BREEAM

All statutory fees

Provisional sums, Dayworks & Contingencies

Bond or Parent Company Guarantee