

NHS
**East Suffolk and
North Essex
NHS Foundation Trust**

Tender: Project – IHT – Maternity Tower Heating PHX
Client: East Suffolk and North Essex NHS Foundation Trust
Site: Ipswich Hospital
Heath Road
Ipswich
Suffolk
IP4 5PD

Quality Question 2

Experience - Can the contractor demonstrate a suitable level of experience working within a live acute hospital environment? Or Other similar healthcare settings. Please provide details of previous mechanical project site experience.

Project Experience Report 1

Project: BG01 Boiler Works ESNEFT1617
Location: Ipswich Hospital, Plantroom
Project Manager: Luke Skipings
Date Completed: June 2023
Price: £671,455.54 +vat

Olympus Mechanical were successful in securing the above project during 2022 through the MultiQuote process, the project aim was to bring the current boiler installation up to BG01 standards to improving monitoring with the boiler house and improve upon the efficiency of the burners.

Olympus allocated an experienced project team to complete the work with over 35 years combined experience of working within Ipswich Hospital. Within the project there were requirements to manage key supply chain members such as Dunphy who would design, supply and install the new burners. The project team encountered numerous issues with supply chain performance during the project which could have affected steam supplies to the Ipswich Hospital site, the Olympus team managed to use our combined knowledge of the site and experience to mitigate against any potential impact on steam supplies across the site.

Due to the nature of the project careful planning was required for each stage of the project to mitigate against any potential downtime of services. During the preconstruction phase Olympus carried out a programme of works on Microsoft project which included 7 phases of the installation process. The operations manager was responsible for correlating and managing the activities within the 7 phases to ensure the sequencing was completed as per the requirements and all supply chain members delivered their portion of the works within each phase so live services were always available to Ipswich Hospital.

Any potential issues were avoided, and the project was handed over to ESNEFT successfully with our engineers and management team gaining further experience of completing large mechanical projects at Ipswich Hospital. This experienced team would also be allocated to complete any further works on the site, this provides confidence when it comes to delivering mechanical installation projects within a live acute hospital environment.

Scope of Works

- Gas Installation – Amendments to gas main supply, installation of electronic shut off valve with knock off button.
- Steam and Condense Installation – BG01 Type 2 installation to make monitoring and controllers automatic to increase efficiency of the boilers. Installation included the below items:
 - 1. High Integrity Level Controls to be installed
 - 2. Self-checking flame sensors (as part of the new burners and controllers)
 - 3. Pressure control stats to be replaced and moved to the top of the boilers
 - 4. New Blowdown Vessel to be installed as indicated on the drawing
 - 5. Remote shutdown panel to be installed in the telephone exchange
 - 6. Remote Monitoring
 - 7. Supply and Installation of new Dunphy dual fuel burners.

Project Experience Report 2

Project: OPD Boiler Replacement and Associated Works (1920EB14)

Location: Ipswich Hospital, Plantroom 8

Project Manager: Dave Carey

Date Completed: February 2020

Price: £148,000.00 +vat

Olympus Mechanical Services were approached through MultiQuote to supply and tender submission for the above project in May 2019. Following the tender process Olympus Mechanical were successfully awarded the project. The project comprised of supply, installation and commissioning of new steam plate heat exchangers to supply the existing services within the Roof Plant Room above the Eye Clinic Department in Outpatients.

Scope of Works

Steam and Condense Installation

- New steam and condense system was taken from existing maternity basement of the hospital to the plantroom install new 2" steam and condense pipework.
- 4 x Supply and Installation of Spriax Sarco Steam Plate Heat Exchangers along associated valves, pipework and Spirax Sarco Steam traps.
- Supply and Installation of new Steam Calorifier
- Full change over to steam plant once all equipment had been installed.

LTHW Installations

- The pipework on the primary side from the low loss header to the boilers was replaced and altered so the heating is fed from the run and standby plate heat exchangers.

Automatic Controls (BMS) Installations – Controls Included for new monitoring of the steam plate heat exchangers

- Steam flow and return temperatures
- LTHW flow and return temperatures
- Control valve position
- High Limit valve position
- Current Duty of PHE
- Run/Fault

Challenges Faced Working within Live Acute Hospitals

It was highlighted at the beginning of all the stated projects that there would be key challenges Olympus Mechanical would have to overcome to successfully deliver the works. Please see below table showing the challenges faced and the experience Olympus has gained working on these previous projects.

Challenges Faced Working in Live Acute Hospital	Experienced gained working on previous Steam Project
<ul style="list-style-type: none"> • Access to certain areas might now be available at times when required • Shut downs will not be possible at most times • Noise pollution is not allowed at most times of the day • Various contractors are always present on site, engineers have to be aware of this • The site is a very large in area, knowledge on site is an advantage • Well-being of patients is a priority, the comfort of the patients cannot be compromised at any stage of the works • Protection of any hospital equipment within the working area must happen before works commence • Risk of dust and infection control must be controlled at all times • Asbestos is present throughout the hospital, risk management must be in place • Public has access to the hospital, protection of the public must be in place at all times 	<ul style="list-style-type: none"> • Engineers have gained experience working on the current steam installation at the Hospital • Olympus Mechanical now has a very good knowledge of the current steam system to enable us to continue working on the system • Management Team understands the challenges and risk when working within live acute hospital • Risk assessments produced to suit nature of the environment these include, well-being of patients, protection of equipment, risk of dust, asbestos management, protection of public • Unique method statements have been produced for working within the hospital environment • Olympus understands the flexibility required to meet deadlines when working within this environment • Engineers have the ability to work alongside other contractors on site • All engineers have an excellent knowledge of the site

Working in Live Hospital Environments

- Olympus Mechanical possess engineers which have over 80 years combined experience working within this type of environment and understands the challenges which are required to be overcome, these engineers were all allocated to the projects to guarantee this experience was utilised. Likewise if Olympus Mechanical's tender bid is successful for the new Maternity Tower Heating PHX project these experienced engineers will be allocated.
- Due to the nature of the site we understand that downtime is kept to the minimum and services are to stay live where possible. During some of the project a change over period was planned by the Olympus management team, a time period was selected which would be most suitable for the minimum amount of downtime required, it was vital the changeover happened as quickly and efficiently as possible. Within the new Maternity Tower Heating PHX project there are sensitive works that are similar to this previous project, the same team with this experience will be allocated to these works to guarantee the process will be completed successfully.

- Olympus Mechanical management team has 17 years' experience working at Ipswich Hospital so has a great understanding of the challenges faced. Risk assessments and method statement which have been successful in previous projects will be utilised for the new Maternity Tower Heating PHX project by the Olympus Management Team.

Asbestos Management at Ipswich Hospital

- Olympus Mechanical's director Chris Chapman has been working at Ipswich Hospital since 2004 so has gained many years' experience managing the risk of asbestos on the site, Chris is also level 2 Asbestos Awareness trained.
- Pre-surveys were carried out within the areas of which Olympus would be working and samples taken of any suspected asbestos before works commenced. This process will be followed for the Ambulance Station project.
- Asbestos register was provided from facilities and this was studied during the survey. This process will be followed for the Ambulance Station project.

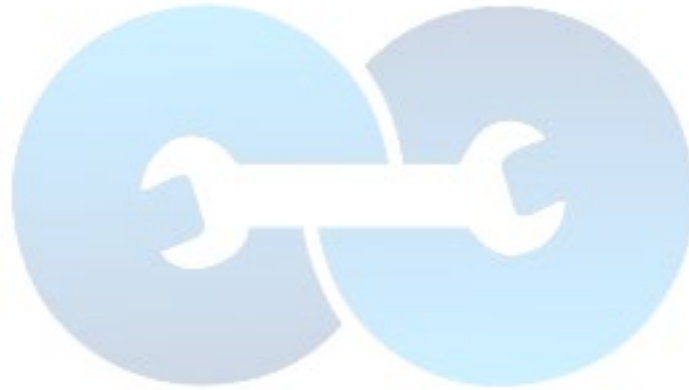
The above challenges highlight that Olympus Mechanical has gained the suitable level of experience working within a live acute hospital environment and this has been located within Ipswich Hospital. The same management and engineering team will be used for the Ambulance Station Calorifier Replacement Works if Olympus Mechanical's tender bid is to be successful.

Further Previous Projects Completed

Location	Date	Description of Works
<p>Dalair AHU's Installation</p> <p>Plantroom 1, Colchester Hospital</p>	<p>March 2023</p>	<ul style="list-style-type: none"> • Supply and installation of 2 x Dalair AHU's located externally to Plantroom 1A. • Removal of existing AHU's within Plantroom 1A. • Isolation and cut in to existing heating and chilled water supplies to provide new connections for Dalair units. • Prefabrication and installation of all new pipework. • Supply and installation of new Grundfos pumps onto chilled water supply. • Design, supply and installation of new ductwork system to suit requirements. • Supply and installation of new steel structural frame from new Dalair units to be located. • Installation of new steel walkway between Dalair units. • Design and installation of new BMS panels for each Dalair AHU. • Installation of new electrical supplies for BMS panels and Dalair units. • Installation of new lighting to illuminate new walkway. • Chemical flush of all new pipework, testing of existing water quality and dosing as required.

<p>Emergency Gas Repairs</p> <p>External, Ipswich Hospital</p>	<p>September 2022</p>	<ul style="list-style-type: none"> Investigate a loss of mains gas pressure to halve of the property at Ipswich Hospital. Following the original call out it was found a water leak had ingress into the system causing damage in multiple locations and leaving water throughout the gas pipework system. Olympus proceeded with the repairs which included excavation to expose pipework in various locations, replacement of 12" gas pipework and any valves required, removal of any remaining water, testing/purging of the gas pipework and making good of all groundworks.
<p>Ambulance Station Plate Heat Exchanger Installation</p> <p>Ipswich Hospital</p>	<p>May 2023</p>	<ul style="list-style-type: none"> Steam Plate Heat Exchangers replacement on primary heating Installation of new steam main to serve plate heat exchangers Spirax Sarco equipment was specified for these works Amendments to current heating system to suit, replacement of control valves, pipework etc Heating shutdowns and changeover periods where required Amendments to current BMS panel by ICS
<p>Steam Plate Heat Exchanger Installation</p> <p>Oncology, Ipswich Hospital</p>	<p>May 2011</p>	<ul style="list-style-type: none"> Steam Plate Heat Exchangers replacement on primary heating Installation of new steam main to serve plate heat exchangers Spirax Sarco equipment was specified for these works Amendments to current heating system to suit, replacement of control valves, pipework etc Heating shutdowns and changeover periods where required Amendments to current BMS panel by ICS
<p>Condense Installation</p> <p>Plantroom 1, Ipswich Hospital</p>	<p>April 2012</p>	<ul style="list-style-type: none"> Full condense pump replacement within plantroom. Replacement of 4" copper condense line with stainless steel pipework. Amendments were required to pipework to make it suitable for new installation. New insulation installed where required.

Chiller Installation Plantroom 7, Ipswich Hospital	February 2021	<ul style="list-style-type: none">• Supply and Installation of Powermaster 60kW Chiller Units• Replacement of all pipework and associated valves• Supply and installation of insulation to new pipework• New Insulation installed where required• Amendments to current BMS panel by ICS
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