

**CAPABLE &  
COMMITTED**





# HELLO & WELCOME



Since 1998 we have built an enviable reputation within our sector. We are proud of this and the work that we do. As a result of our hard work we have enjoyed organic growth in all parts of our business.

Due to this growth we have recently re-located to new 12,000 sq ft premises which is 300% larger than our previous headquarters.

The move ensures that all companies in our group, including our fabrication division, are brought together under one roof to improve efficiency and further integrate our services.

People are at the heart of our business; clients, stakeholders, end-users and of course our 100-plus members of staff.

We truly believe in training our people and investing in the latest technology ensures we can deliver the best, most efficient services to clients consistently.

This approach has been instrumental in our company growth, with the G&H group recording turnover in the region of excess of £25 million in the financial year 2015-16.

As we look forward to the next phase of our growth plan in line with our core values of service and quality, we hope to do business with you in the future.

Graham Kelly, Managing Director



**08**

Proven Team

**10**

Tried & Trusted

**12**

Pre Construction & Quality Delivery

**14**

Our Company & Capability



**16**

G&H Building Services

**20**

G&H Sustainability

**24**

G&H Maintenance

**28**

G&H Fabrication



**32**

Investment & Commitment

**34**

Safe & Sound

**36**

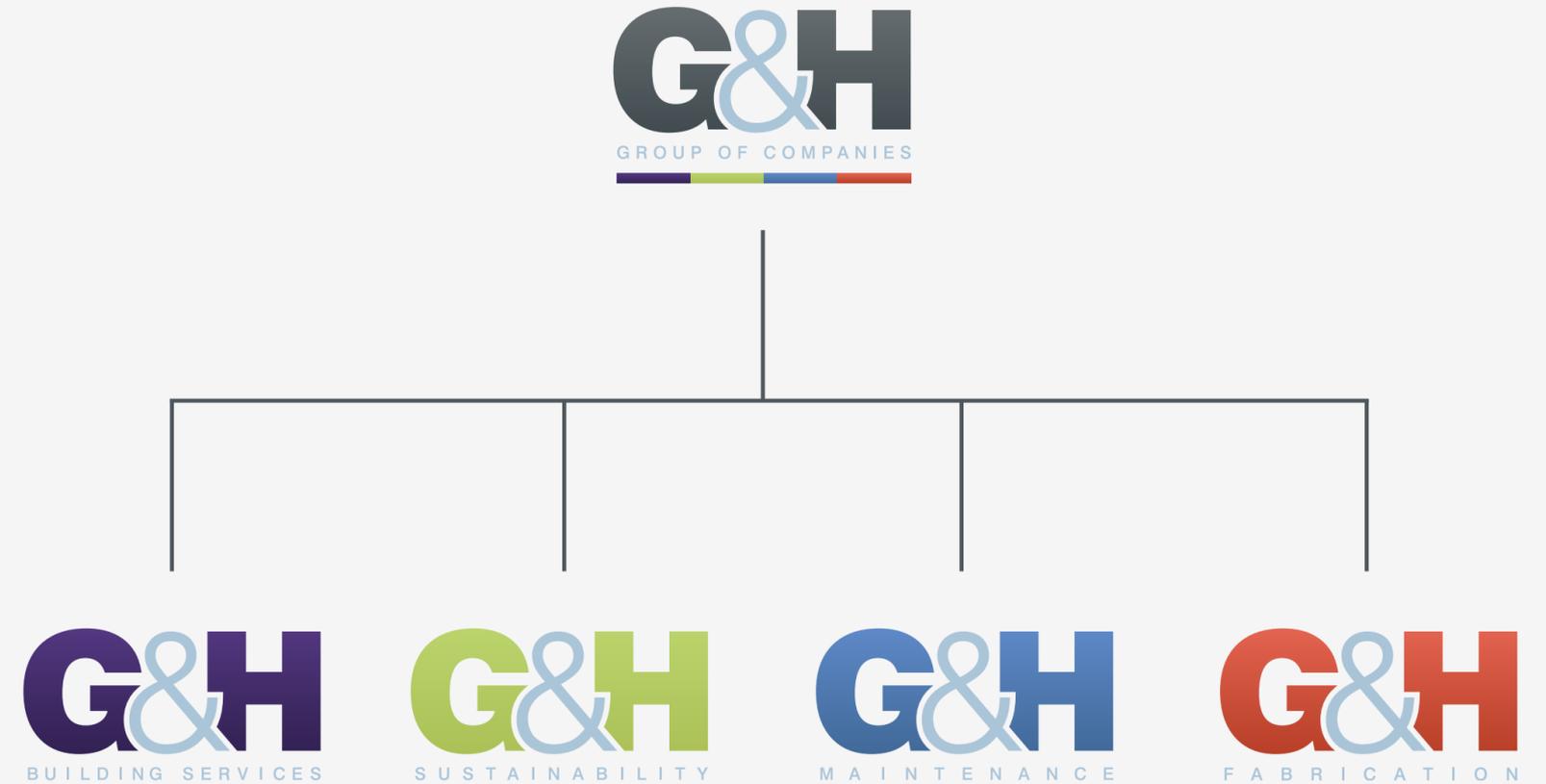
Partnerships & Accreditation

**38-83**

Case Studies & Feedback

# THE COMPLETE SINGLE SUPPLIER BUILDING SERVICES PACKAGE

G&H Group is made up of four operating divisions; Building Services, Sustainability, Maintenance & Fabrication. We operate as separate divisions to provide strategic specialist services and support. Our structure allows us to operate efficiently to ensure we are able to provide the best service at the right price.



# PROVEN TEAM & A GREAT TRACK RECORD



**Graham Kelly**  
Group Managing Director

Graham is the founder and group managing director at G&H. Under his leadership the business has grown from humble beginnings to the company it is today. His passion for achieving perfection continues to drive the business from strength to strength.



**Dave Davis**  
Pre-Construction Director

Dave is responsible for the pre-construction activities within the Group, from initial contact with clients up to delivery of a tender proposal. With a design background, Dave has a great deal of experience across the industry and this has proved invaluable for both G&H and our clients to provide innovative solutions to any problem.



**Mark Craven**  
Group Commercial Director

Mark is responsible for all things commercial across the group. He is passionate about the numbers and actively contributes to operational delivery within the business.



**Andrew Hudson**  
Group Director

Andrew established the Sustainability division of the group and continues to be involved with its operation. He also contributes to aspects of all group businesses from a development and strategy perspective. As a chartered engineer he provides technical support to our in house teams.

## VISION & VALUES

Our vision for the G&H Group is based on the values of the Board of Directors; we have a culture of striving for improvement that guides how our whole organisation operates.

Having spent all their careers in the construction industry, the Directors bring diverse but complementary skills to grow the Group further, strategically building on the momentum in the business.

Central to our vision is greater integration of the Group's four divisions into all our clients' projects so we can bring our technical excellence in design, build, installation and maintenance to the entire M&E process.

Our approach is to reinforce relationships with established clients and build enduring new ones with like-minded businesses in our key markets.

We continue to build long-term commercial relationships enabling us to strategically target the work that will help us realise our vision.

The Board will ensure the G&H Group is a company that is lean and agile both financially and in terms of adopting new ways of working; a business of first choice; to challenge convention by adopting a greater culture of innovation throughout the organisation and, ultimately, deliver an even better level of service for clients.

To do this, the Board leads by example through an ethos of operating in an inclusive, honest and transparent manner, by being customer-focused, ethical, innovative, creative, commercially minded and sustainable.

# TRIED & TRUSTED

We have the breadth and depth of expertise to provide solutions to the most technically challenging and time critical projects. We've been doing this since 1998 across a variety of sectors for well known blue chip companies including Rolls-Royce, Asda, EE, NHS, LA Fitness, Coca-Cola and Siemens. People are at the heart of our approach; clients, stakeholders, end-users and, of course, our staff.

So whether it's a listed building in Central London that requires precision project management and night-time road closures while working around residents, designing and installing innovative, income-generating renewable technology schemes, carrying out technical maintenance or pre-fabricating crucial services in our purpose-built premises to speed-up the construction process, we are class-leading in every discipline.

It's this level of expertise that sees clients trust us time and time again to manage their projects, the people involved and all associated issues to ensure deadlines are met, costs controlled and schemes exceed expectations.

**Mark Craven**  
Group Commercial Director at  
G&H Head Office



# PRE CONSTRUCTION & QUALITY DELIVERY

We have worked hard to create an in house team that can manage all aspects of a scheme, from up front design and cost assistance to the installation of a complete M&E system, to the aftercare through our maintenance business. We operate on a genuine nationwide basis and feel we have genuine value to add.

## DELIVERY

We excel at quality delivery. Our directly employed team of engineers install to the highest standards. We are constantly improving our quality procedures for increased efficiency and client visibility.

## PERFORMANCE & COMPLIANCE

We are able to provide building regulation and planning compliance in the design work we do. We also find that we are able to add considerable value with the analysis of enhanced performance of certain areas of the project that can deliver long term savings.

## MAINTENANCE

Our in house maintenance team provide planned and reactive maintenance. Once we have completed a project we are able to maintain it in house. What better team to look after your new asset than the people that installed it?

# THE G&H PROCESS

## CONCEPT

The earlier our involvement in a project the more value we can add. Our experience covers a wide range of sectors and projects and we actively participate in early scheme concepts.

## FEASIBILITY

Once a scheme has been conceptualised we are able to undertake detailed feasibility into the mechanical, electrical, sustainable and pre-fabricated options. It is usual for this to be formally presented with high level cost advice to aid client decision making.

## COST ANALYSIS

We can provide detailed cost support and analysis. As a well-established contracting business we have unrivalled cost data from decades of project delivery. Use this to knowledge to your advantage.

## DESIGN

We directly employ qualified design engineers for all areas of design within our group. From Mechanical, Electrical, Sustainability and Low Carbon we have the resources to deliver. We are fully BIM accredited and we now design the majority of our major projects in this format.

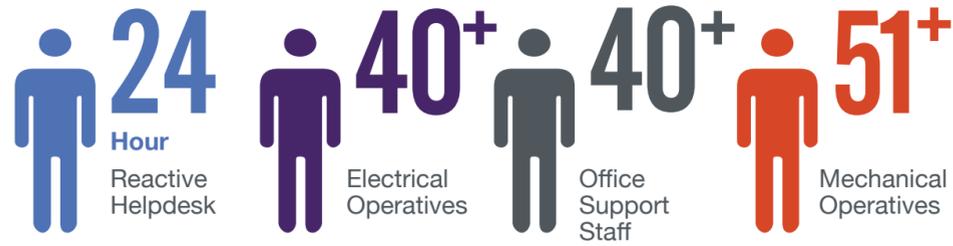
## SPECIFICATION

We are experienced in the preparation of detailed specifications and contractors' proposals. We select the appropriate specification of plant, equipment and systems for the proposed scheme that fits the client's requirements.

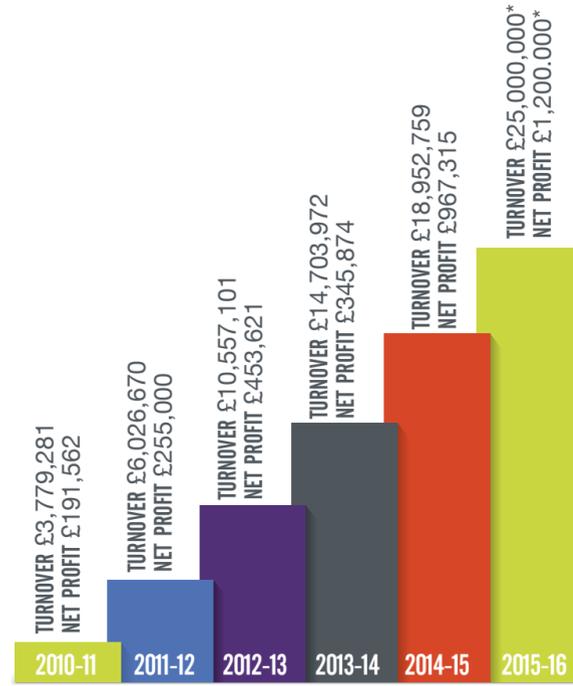
# OUR COMPANY & CAPABILITY

Since our inception in 1998 G&H Group of Companies has grown organically and achieved a group turnover in excess of £25m for 2015/2016.

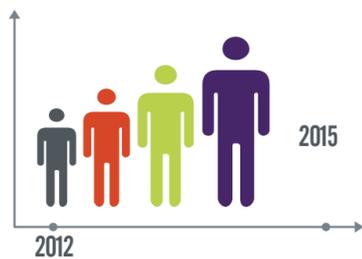
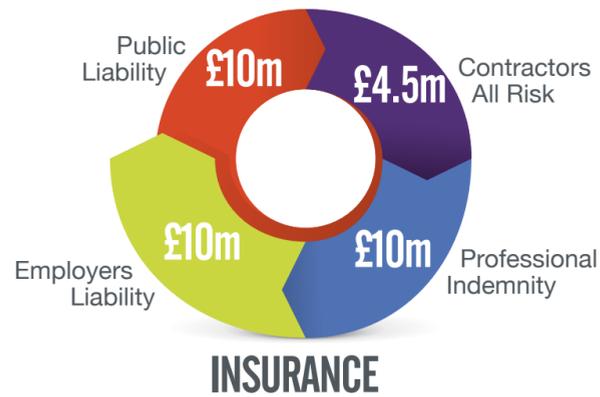
We pride ourselves on our professional approach, quality, reliability and attention to detail.



## STAFF DEPLOYMENT



## TURNOVER

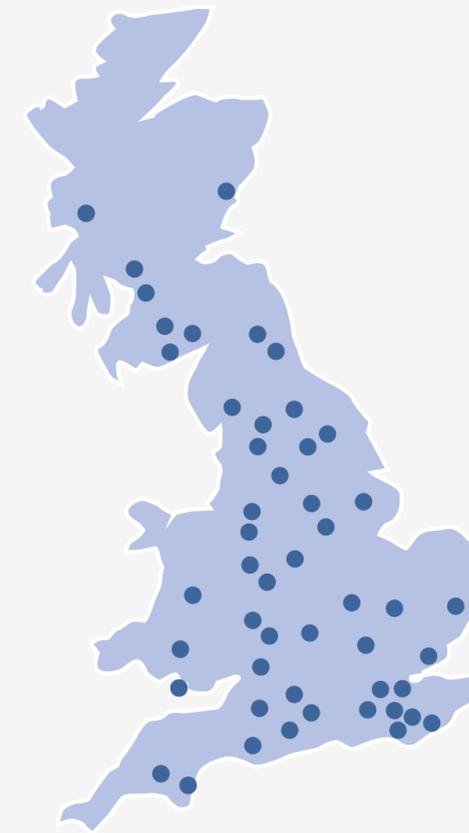


“ The quality of the M&E installation is excellent.

Paul Cook, Strategic Programme Manager (Capital Development) University of Leeds

“ Everybody involved played their part but I would like to single out those who have had to endure challenges each day, their spirit has not broken which is to their credit.

“ I would like to pass on my gratitude to all who have worked on this project for all their hard work, I hope we have the opportunity to work together soon.



## UK WIDE COVERAGE

Hundreds of projects successfully completed all over the UK

Continual growth sustained by the quality of our people and their expertise.

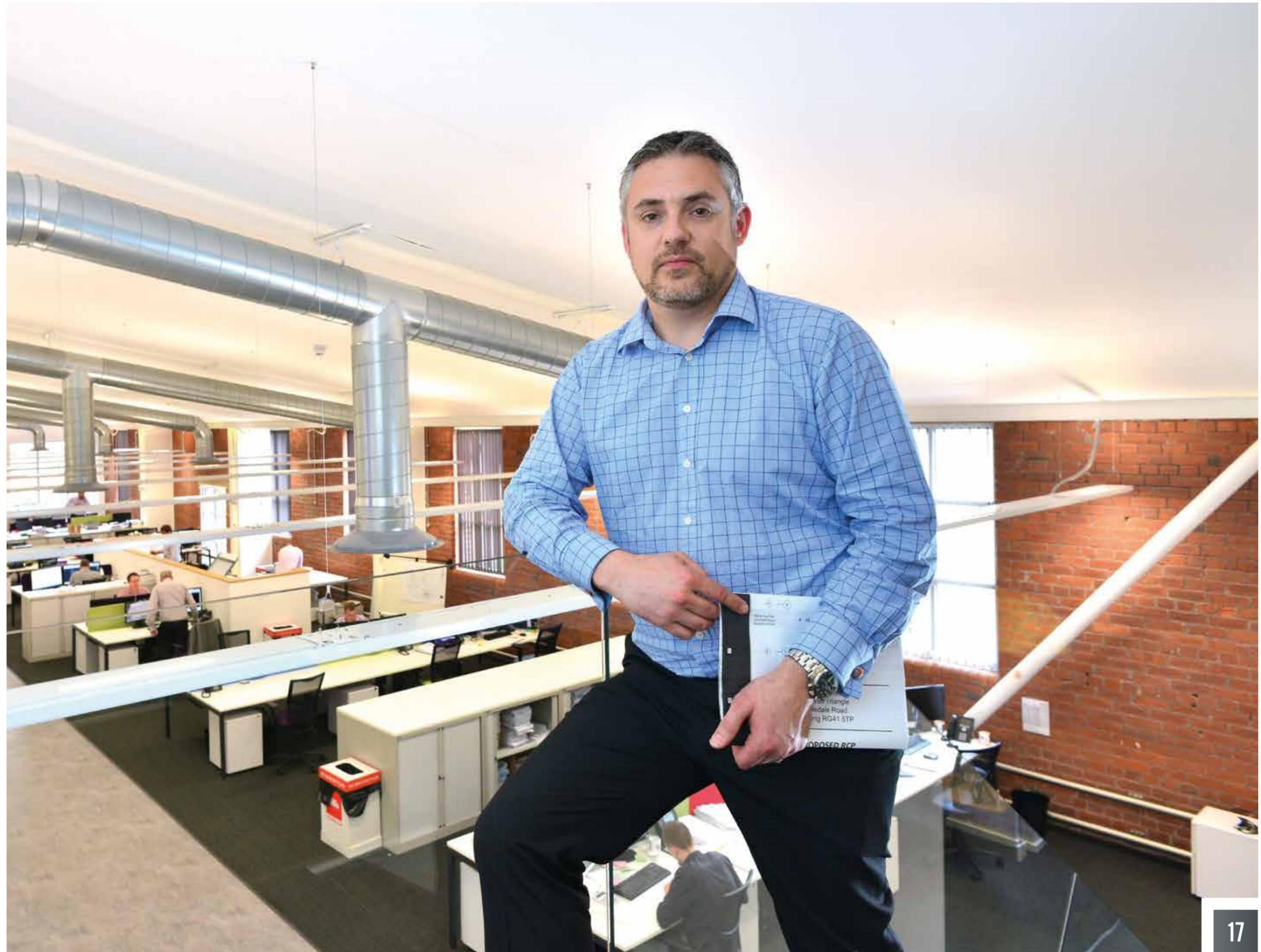
# G&H BUILDING SERVICES

G&H Building Services has grown in line with our strategy. We have grown into one of the UK's most respected mechanical and electrical contracting companies.

We provide our clients – global blue chip PLCs to SMEs – with expert design, project management and delivery skills for the most challenging and time critical schemes.

Operating across a wide range of market sectors, including commercial, residential, public sector, retail and leisure G&H Building Services are perfectly placed to fulfil all your building services requirements.

**David Davis**  
Group Director  
at G&H Head Office



## SERVICES

With our wide ranging in house expertise we are able to deliver a comprehensive range of services.

## HEATING

Comfort is key and we understand not all buildings are alike, each requiring a different approach. We design and install a range of heating systems tailored to each building and each environment from low pressure hot water systems to warm air heating, radiant heating, gas fired heating, evaporative heating and district medium temperature heating systems.



## VENTILATION

A full range of ventilation systems from simple inline fans to medium sized heat recovery systems to larger air handling systems incorporating humidification and temperature control. We have the knowledge and experience to deliver and maintain all types of ventilation systems.



## GAS

Our services include both low and medium pressure gas systems, utilising gas boosters and governors including any gas safety systems and fire alarm interlocks.



## AIR CONDITIONING

Often the primary source of heating and cooling, especially for commercial offices. From the standard ceiling cassette units that everybody recognises to the more bespoke designs with units hidden in voids, walls and under floors to provide special comfort we have the experience to plan, install and maintain.



## DRAINAGE

We have experience in above ground drainage for a full range of building types and sizes from 1-5 storey schools and hospitals utilising chemical resistant drainage, to 10-15 storey apartment blocks and hotels utilising acoustic drainage systems.



## PACKAGED PLANT ROOMS

Utilising our Fabrications division we are able to design and create packaged plant rooms for a range of custom output requirements. Custom design of Packaged Plant Rooms allows for a simple and efficient connection into any system.



## DOMESTIC SERVICES

We design and install a full range of domestic services including mains and boosted cold water systems and centralised and local hot water systems from a number of hot water technologies, including: solar hot water heaters, gas fired hot water heaters and indirect water heaters from a number of sources such as LPHW, electric, solar, biomass and air source heat pumps.



## DISTRIBUTION

We design and install full distribution systems from source to appliance. This includes load assessments, supply authority applications through to the powering up of a new building. We also offer HV integration utilising bespoke package substations.



## SMALL POWER

We design and install full small power systems:  
**Industrial** – surface trunking system and specific electrical system to integrate with manufactures specialist equipment. **Commercial** – Flush and surface installation, and underfloor power management systems. **Residential** – Flush system finished to suit the client requirements.



## DATA SYSTEMS

We understand that IT systems are key to most organisations these days. We offer complete structured cable solutions that suit the client's requirements.



## FIRE ALARM

We design & install fire alarm systems to comply fully with BS 5839 up to L1 protection level and can incorporate voice evacuation & class change systems within the installation



## DDA SYSTEM

We offer a full range of DDA compliant systems to suit any building. We offer disabled refuge systems, induction loop systems and toilet alarm systems



## LIGHTING

Lighting is crucial to achieving a pleasant, practical and operational environment. We design and install a range of Lighting systems tailored to each building and each environment from industrial/commercial to residential. We offer lighting schemes designed to blend in with the architecture of the building and bespoke feature lighting to give the 'wow' factor.

### Lighting Controls

We offer a full range of lighting controls ranging from basic manual systems to intelligent automated presence and daylight control to full digital addressable lighting interface (DALI) systems.

### Emergency lighting

From basic self-contained systems, to central battery systems to self-testing systems, we offer a range of different types of emergency lighting systems to suit the nature of the building and to suit the building occupier's maintenance requirements.



## SECURITY SYSTEMS

We understand the need to protect your building. G&H offer an extensive range of security solutions. We design and install full intruder systems, Door Access and CCTV systems.



# G&H SUSTAINABILITY

Originally incorporated to support the Building Services division with specialist renewable energy projects, the Sustainability division has now grown to serve both internal and external clients.

We are experts in low carbon and renewable technologies and provide services such as compliance support for building regulation and planning requirements, delivery and ongoing maintenance for a range of clients ranging from consultants, clients' agents, main contractors and M&E contractors alike.



## SERVICES & TECHNOLOGIES

G&H Sustainability specialise in renewable and low carbon technologies. We're renowned for our quality, reliability, expertise and professionalism. It's our dedication to excellence that not only enables us to deliver projects on budget and on time but has also been a key factor in our growth in today's challenging financial climate.



### SOLAR PV

Solar panel electrical systems capture the sun's energy using photovoltaic cells. They don't need direct sunlight to work and can even generate electricity on cloudy days. This technology is ideal for large roof expanses typically found on supermarkets, warehouses and education establishments, offering huge multifaceted benefits. Solar PV cuts electricity bills and you can receive payments for the electricity generated through the Government's Feed-in Tariff and sell any surplus back to the grid. It also plays a crucial part in a company's green agenda, significantly cutting carbon emissions.



### BIOMASS BOILER

Biomass systems are an ideal replacement for gas or oil fired boilers and qualify for the Government's Renewable Heat Incentive. They are perfectly suited as a sustainable fuel source for large-scale premises such as schools because there is room to install the equipment, it is incredibly efficient to run and helps reduce fossil fuel usage. Biomass boilers use wood fuel in the form of pellets, chips or logs and require space on-site to store them. In most cases a hopper is used to transfer the fuel to the boiler.



### SOLAR THERMAL

Solar thermal systems capture free heat from the sun and use it to heat water for use inside the building. It is achieved by using 'Flat Plate Collectors' or 'Evacuated Tubes' which are usually mounted on open roof spaces with hot water transferred to a storage tank for later use.



### HEAT PUMPS

Heat pumps are designed to move thermal energy opposite to the direction of spontaneous heat flow by absorbing heat from a cold space and releasing it to a warmer one. Heat pumps generally draw heat from the cooler external air or from the ground and are three to four times more efficient than some alternatives. When a heat pump is used for heating, it employs the same basic refrigeration-type cycle used by an air conditioner or a refrigerator, but in the opposite direction – releasing heat into the conditioned space rather than the surrounding environment.



### ENERGY MONITORING

We offer a range of sophisticated yet easy to use applications to monitor energy efficiency of your systems. It's said "you cannot manage what you cannot measure" and so energy managers provide feedback on operating practices, results of energy management projects, and guidance on the level of energy use that is expected in a certain period. Importantly, they also give early warning of unexpected excess consumption caused by equipment malfunctions, operator error, unwanted user behaviours, lack of effective maintenance and the like.



### COMBINED HEAT & POWER

Combined heat and power (CHP) integrates the production of usable electricity in one single, highly efficient process. It generates electricity while also capturing usable heat that is produced in this process making it one of the most efficient and sustainable technologies available. This primary source offers large savings in energy use and cost for industries and businesses that need to heat and power large premises.



### RAINWATER

Most of the UK is suited to rain water harvesting and can easily be pumped into buildings using existing pipework. Rainwater is pumped through filters and used to flush toilets, supply washing machines and water gardens. Grey water cleans water used in showers and sinks that is recycled for use in the toilet, gardens and washing machines.



# G&H MAINTENANCE

We provide outstanding Planned Preventative and Reactive solutions with mechanical, electrical and sustainability at the heart of our operations. Our work covers high profile and complex sites at locations across the UK for private and public organisations of all sizes. We maintain critical services so buildings can function for their intended use.

We offer Planned Preventative Maintenance through efficient management to ensure the longevity of assets and improve reliability of equipment.

Building Service systems such as M&E need ongoing maintenance. For many businesses, failures can lead to reduced productivity. For those businesses that deal with the public or are dependent on IT services downtime can be critical, which is why we set the highest standards for all our clients.



## SERVICES

G&H Maintenance is becoming one of the most trusted providers of reactive, planned and preventative solutions in the UK due to our bespoke, customised approach.

Our Building Services expertise provides us with a deep-rooted understanding of the systems that will require maintaining, which elements may need special attention and implementing the best long-term solutions.

Equally, we appreciate each building is unique and as such, requires a bespoke maintenance strategy custom made to ensure it functions at its optimum at all times, without fail.

To ensure we deliver on this strategy, we have in place structures that guarantees the best service at the most opportune times.

We have carefully selected a 20-strong team of highly qualified multi-skilled service engineers to be supplemented by circa 100+ specialist operatives throughout our Group.

Our elite national team provides great peace of mind for our clients giving them assurance that any emergency or specialist work will be carried out as and when required to keep facilities open and operational at all times.

Our continued growth is also attributed to our proven track record of delivering on some of the most technically challenging schemes; a key component in why a growing number of blue chip organisations are using our services on a retained basis.

Central to our approach is the use of the latest technology to provide more cost and time-efficient solutions for our clients.



## 24/7 HELPDESK SUPPORT

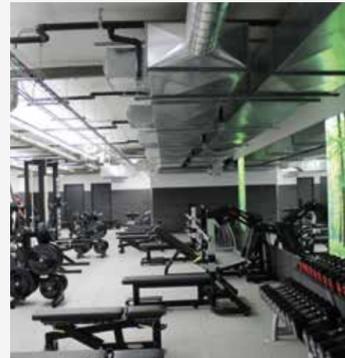
We offer a fully manned helpdesk that is available 24 hours a day, 365 days a year. It is a vital service that is appreciated by clients at the most important of times.



## PLANNED MAINTENANCE

Our in-house mechanical and electrical engineers have a wide range of industry experience. We can provide a suite of services including:

- ▶ Heating Systems
- ▶ Ventilation Systems
- ▶ Air Conditioning Systems
- ▶ Plumbing
- ▶ Electrical
- ▶ Building Energy Management Systems (BEMS)
- ▶ Periodic Testing
- ▶ Water Treatment
- ▶ Fire Alarms
- ▶ Security System
- ▶ Lifts
- ▶ Lightning Protections
- ▶ 24/7 Client Helpdesk



## PREVENTATIVE MAINTENANCE

Strategic planning is critical to preventive maintenance and, crucially, reduces the amount of reactive maintenance required.

This approach increases reliability, maximises efficiency and enables businesses to plan budgets and forecast costs more accurately.

Our engineers carry out comprehensive in-depth audits and provide detailed maintenance reports so it is clearly understood which elements need repairing and at the optimum time, limiting downtime and disruption.

Cycle life analysis of materials, components and infrastructure systems is a core function of G&H Maintenance. From this we schedule, estimate costs and prioritise areas of importance in a highly-detailed manner to give clients complete confidence and peace of mind.

## REACTIVE MAINTENANCE

We pride ourselves on our excellent customer service and communications skills.

Our emergency support is a vital service that is appreciated by clients at the most important of times. Our approach to reactive maintenance focuses on not only finding and implementing a right first time solution, but to build in longevity wherever possible.

## PAPERLESS EFFICIENCY AND EFFORTLESS REPORTING

G&H Maintenance-specific back office systems connect our engineers and customers together.

Engineers can access and populate site reports electronically whilst on location. Real time access provides site information, customer history and asset information in the palm of their hand, ensuring nothing gets missed.

Our system offers many benefits such as the ability to photograph materials and equipment, compile reports and obtain client signatures saving valuable time, vital when carrying out emergency reactive repairs.



# G&H FABRICATION

G&H Fabrication is a specialist division within the G&H Group, created to provide bespoke solutions for our operating divisions and external clients.

Our in-house facility gives us the ability to control and manage more of the building and maintenance supply process, reducing dependence on external suppliers. Crucially, it means our other companies within the G&H Group – Building Services, Sustainability and Maintenance – can all operate in a more efficient way, delivering to the highest standards we have been synonymous with for over a decade.

We have complete pre-production and prototype facilities, which coupled with our AutoCAD and BIM software, enables us to turn designs into fully manufactured products for use on-site.

Clients already benefiting from this process include some of the biggest names in the UK.



## SERVICES

Our work enables the other companies – Building Services, Sustainability and Maintenance – to operate in a more efficient way, delivering to the highest standards the G&H Group has been synonymous with for over a decade.

### THE BEST FACILITIES

Fabricating in our purpose designed indoor facility also means we are able to increase the productivity and quality while maintaining a safe environment. Our engineers can access the work area without the hindrance of walls and structural steelwork and then test products, structures and plants, make any adjustments there and then and test again prior to dispatch to site.



### WELDING

All our welders are coded in a range of materials including Carbon, Stainless steel and exotic materials. Rigorous ongoing training ensures that we're capable of utilising the most up-to-date welding methods.



### OFF-SITE PREFABRICATION

The benefits of off-site pre-fabrication are vast, most notably a significant reduction in the time it would take us to complete the works if we used traditional methods. A major advantage for construction companies is that we can spend less time on site so we are freeing up space for other trades and reducing congestion.



### AUTO CAD & BIM SOFTWARE

We have complete pre-production and prototype facilities, which coupled with our AutoCAD and BIM software, enables us to turn designs into fully manufactured products for use on-site.



### PACKAGED PLANT ROOMS

We have experience in the design and fabrication of pre-packaged plant rooms. These are manufactured off site with all systems pre commissioned and signed off prior to delivery. These can save both time and money and are becoming an increasingly popular option.



# INVESTMENT & COMMITMENT

As a privately held, limited company which is wholly owned by the board we are in control of our finances. We have taken the decision to continue ongoing investment in both infrastructure and training.

We have recently purchased our new HQ and funded the complete fit out to allow the business to continue growth.

Our commitment is to our people. We will do the right thing to ensure we secure a strong future for the business.



## SUSTAINABLE THINKING IN M&E

Sustainability is now at the forefront of the building services sector and of enormous importance to the construction industry.

Every project is different and we are adept at managing the diverse needs of our clients. We aim to reduce energy consumption through design, commissioning, operation and maintenance.

# SAFE & SOUND

We take health & safety seriously. We have a NEBOSH qualified board director and all our project management staff and supervisors are trained in SMSTS and SSSTS respectively.

All operatives have CSCS cards and hold relevant qualifications to the work that they do.

We employ an independent health & safety consultant to provide regular reviews of our practices and procedures in addition to random site visits to ensure we practice what we preach.

# APPRENTICES & TRAINING

People are at the heart of everything we do. As a service business, we recognise our value is in our people. We invest heavily in training and are always looking for ways to discover and introduce the latest technology across our businesses to ensure we can deliver the best, most efficient services to clients.



# PARTNERSHIP & ACCREDITATIONS

As part of our commitment to quality we actively subscribe and participate in recognised and industry specific accreditations and associations.

We feel these promote quality and an additional level of external audit to ensure we are up to date with the latest requirements. We have board level representation at B&ES & CIBSE committee level.



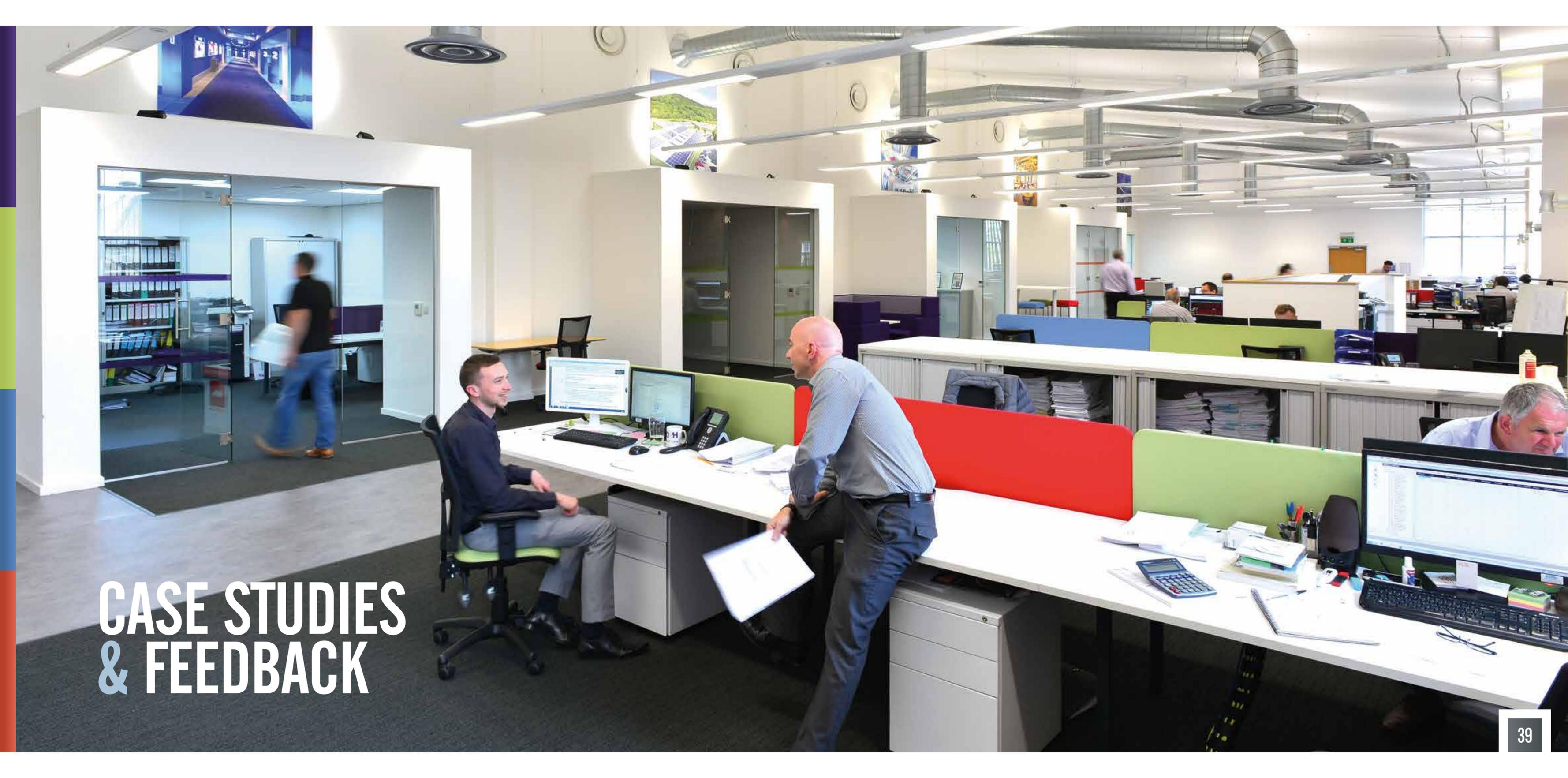
## TALK TO US

We'd love to hear from you. Whether you have positive or constructive feedback we would like to hear it all. Get in touch at:

email: [Info@ghgc.co.uk](mailto:Info@ghgc.co.uk)

tel: 0113 2556433





# CASE STUDIES & FEEDBACK

# OUR NEW HEAD OFFICE

## PUDSEY, LEEDS



### KEY FEATURES

- 12,000 sq. ft. bespoke office accommodation for the G&H Group
- Brought all four G&H divisions under one roof to provide continuity and more efficient services for clients
- Showcasing the best of retrofitting M&E services
- Bought and owned by the G&H Group
- Brought a disused, dilapidated building back into use

### THE DETAILS

**Project title:**  
G&H Offices

**Location:**  
Pudsey, Leeds

**Client:**  
G&H Group of Companies Ltd.

**Services:**  
Mechanical & Electrical

**Main contractor:**  
G&H Group of Companies Ltd.

## THE BRIEF

To meet the Group's growth, a new headquarters was required for three key reasons:

1. To provide an environment so client projects could be delivered more efficiently;
2. To accommodate our growing workforce;
3. To enable our four divisions to work more closely together.



## OUR APPROACH

We complemented our own experience and skills with an architect and interior designers to create our new headquarters in a modern, light and uplifting style. The positioning of the departments was crucial.

We created a mix of open plan and closed office spaces so staff in each division can work side-by-side and interact easily while having direct access to senior management.

The purpose-built G&H Fabrication centre means designers and engineers can take a hands-on role with welders and guide the process.

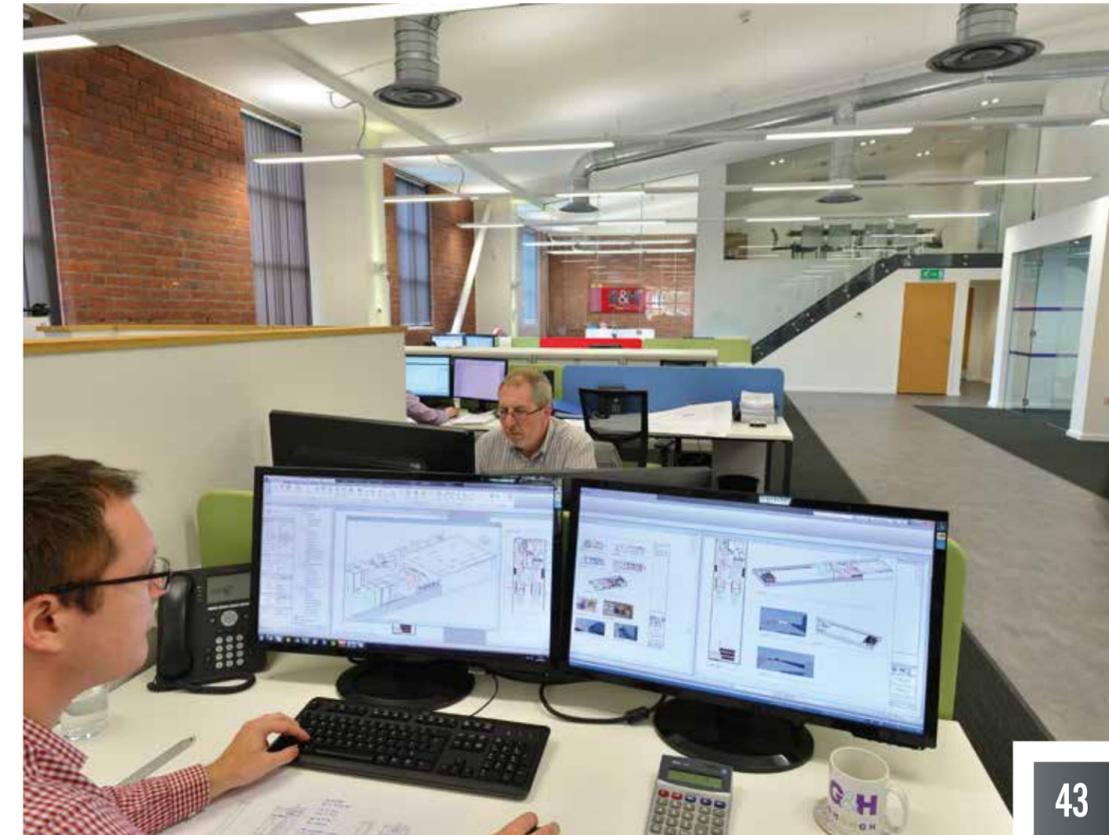
Meeting rooms fully equipped with interactive IT facilities coupled with less informal break out areas were created to make sure meetings can be held without delay and there is no shortage of private space.

A reception area providing light refreshments and bathroom facilities was designed to make visitors welcome and accommodated on arrival.

Additional staff facilities include an interactive area featuring a canteen, IT facilities, fully equipped gymnasium, and shower and changing facilities.

The regeneration of Firlands Mill has also had a positive impact on the local community.

The mill stood derelict for many years but by bringing it back to life, we have transformed it from a blot on the landscape into a building that is attractive, clean, tidy, safe, secure and environmentally friendly.



# BIRLEY & PARKWAY FIRE STATIONS

## SHEFFIELD



### KEY FEATURES

- M&E was BIM-led by our specialist in-house team to speed-up the process and prevent delays caused by unforeseen problems
- Two new build fire stations requiring similar M&E facilities but different building layouts needed bespoke designs
- Both were high pressure projects with exact, non-moveable, non-negotiable deadlines
- South Yorkshire Fire and Rescue had to be operating from the new sites on specific dates as the old stations closed within one day
- Co-ordination of services and planning was vital to success
- Meticulously planned to secure labour and equipment at the start of the holiday season to ensure no downtime
- Extensive design input to ensure all systems installed would benefit this crucial 999 emergency service
- Worked seamlessly at two sites on separate sides of Sheffield

### THE DETAILS

**Project title:**  
Birley Fire Station, Parkway Fire Station

**Location:**  
Sheffield (two sites)

**Client:**  
South Yorkshire Fire and Rescue

**Services:**  
Mechanical & Electrical

**Main Contractor:**  
BAM Construction

**Value:**  
£1.1million

## THE BRIEF

To design, supply and install full M&E services at two new fire stations - Birley and Parkway - with non-negotiable move in dates as the fire authority was shutting the old Mosborough, Darnell and Mansfield Road Fire Stations within one day.

To ensure all services were highly efficient and reliable to complement the emergency work it carries out.

## OUR APPROACH

As the fire stations were new build projects, we had the opportunity to make them class leading in terms of its M&E services.

This was viewed as crucial given the emergency work the fire service carries out and how every second is vital when responding to 999 call outs.

The strict deadlines imposed for the project completion and handover required us to plan intensely, covering all eventualities that could be accounted for.

We continuously analysed the timetable so we were always ahead of schedule and planning in advance for crucial elements like labour resources as the May and June holiday period would be beginning at the same time we approached the last part of the programme.

By booking engineers and special commissioners in advance, we avoided being short of key personnel and avoided delays.

The same approach was taken to ordering the equipment needed.

Advanced orders ensured we wouldn't be waiting for parts, which was vital given we were providing a LPHW heating and plant room, new HRU ventilation systems, air conditioning, small power and data, full lighting, fire alarms, television installations, an air source heat pump at Parkway and solar PV at Birley.

As it was imperative there could be no delay, our in-house BIM team led the projects.

As with all BIM projects, a large amount of design work is carried out at the beginning of the programme - typically much more than traditional 2D designs - but provides significant time savings over the course of the work.

The benefits were enormous as BIM was also being used by the main contractor, BAM Construction.

For example, it meant we could identify in detail the best locations for HVAC systems and avoid any surprises arising on site due to changes in any other specialist fields such as structural steelwork.

It also enabled us to model pipe sizing, cable calculations and basic energy modelling.

Regular BIM design meetings were held to run through the co-ordinated models to understand in advance where clashes may occur or highlight design changes that need implementing.

This gave us a huge advantage in speeding up the process considerably, allowing M&E engineers to work side by side efficiently in order to deliver two faultless schemes.

As a result, we managed to meet all the challenges set and hand over on budget and on time allowing for thorough testing and snagging so the new fire stations could comfortably open on the specified dates.



## CLIENT'S REACTION

It has been a long time since I have experienced as good of a service from a Mechanical and Electrical subcontractor.

*Daniel Walsh*  
Project Manager  
BAM Construction Ltd



## CLIENT'S REACTION

The service we received was excellent from start to finish; the upfront design service was punctual and amenable to change with a good level of clear design information issued.

The on-site delivery team were very user-friendly and were problem solvers, not problem finders. We found G&H were accommodating to Client alterations and gave clear guidance on the impacts associated with such changes.

The commercial aspect of the project also ran smoothly, changes were priced and agreed in a timely manner and any 'contested items' were openly discussed and agreed amicably. The final account was agreed promptly.

We would like to give a special acknowledgement to the on-site Working Supervisors Paul Holmes and Stuart Handcock who were a pleasure to work with.

*Luke Oldroyd*  
Project Surveyor  
BAM Construction Ltd



# 10 TRINITY SQUARE LONDON



## KEY FEATURES

- One of London's most important and iconic Grade II\* listed properties: the former Port of London Authority Building
- Worked sympathetically in a challenging environment so rich in history it hosted the first UN meeting
- Overcame complex Central London logistics with precision delivery
- Entrusted to deliver a complicated scheme in one of the capital's most high profile redevelopments regularly used for filming blockbusters including Skyfall

## THE DETAILS

**Project title:**  
10 Trinity Square

**Location:**  
London

**Client:**  
Reignwood Group

**Services:**  
Mechanical

**Main Contractor:**  
Donban Contracting Ltd

**Value:**  
£1.1 million

## THE BRIEF

The former Port of London Authority building is being sympathetically transformed into elegant apartments and penthouses, a five-star hotel, a private members club and a host of luxury amenities and services.

The first phase of the work saw us transform the main entrance of the building into a new marketing area with a revitalised main reception hall and ballroom, lavish toilets and kitchen, and a luxurious sample hotel room for prospective clients to view.

## OUR APPROACH

In order to deliver a seamless project with limited on-site storage facilities, a small delivery area and limited access, we managed a successful delivery operation.

Central to this was establishing clear and continuous communication with the site managers and other companies working on the project.

The building has great history, which in turn created many challenges such as confined space issues that we overcame by thinking innovatively.

The ballroom was the venue of the inaugural meeting of the General Assembly of the United Nations in 1946 and required us to sympathetically update it while remaining in keeping with its period features.

The oak panelled ballroom could not be disturbed so we had to work intricately behind the façade installing air conditioning and ventilation in order to preserve its rich heritage.

Features including bespoke cast iron radiators were introduced to demonstrate the high level specification of the properties for sale.

Within the sample residential apartment and hotel rooms we installed various ventilation and air conditioning systems, which all integrate into the wireless control system that operates music and access control features.

All grilles in the rooms were either designed to be invisible or, where this was unachievable, reflected the period of the building.

High end sanitary ware was fitted to the bathrooms, integrating with the bespoke Italian marble finishes, all of which required careful planning to ensure any holes were correctly positioned.

Further challenges included the installation of a new symphonic rain water system and full smoke ventilation system both of which had to be distributed within the existing fabric of the building.



# LAX FITNESS LONDON



## KEY FEATURES

- Overcame complex Central London logistics to deliver a seamless project despite no on-site storage facilities, a small delivery area and limited access
- Worked sympathetically within existing parameters due to façade restrictions
- Complex subterranean project required innovative methods of delivery
- Precision project management
- Personal approach to liaising with 4,000 occupants within the building
- G&H were entrusted to develop the first LAX Fitness venue in the City

## THE DETAILS

**Project title:**  
LAX Fitness

**Location:**  
St Botolph's Building, London

**Client:**  
LA Fitness

**Architect:**  
JAMM Ltd

**Services:**  
Mechanical & Electrical

**Main contractor:**  
WFC

**Value:**  
£900,000

## THE BRIEF

As LA Fitness introduced its upmarket brand 'LAX' for people prepared to invest more for structured training classes and ultra modern facilities.

We were asked to design and install a suite of high specification mechanical and electrical features for its first LAX club.

It is the largest in the City and LAX Fitness' flagship venue so all the features had to create a high-tech, cutting-edge environment to appeal to the high net worth individuals who reside and work in St Botolph's.



## OUR APPROACH

The biggest challenges we faced were posed by the location and building itself.

The Central London address meant there was no traditional storage space available for goods and components and the delivery area was very small and congested.

We overcame this by liaising closely with the building's various landlords and occupants, managing a precision logistics operation to avoid any downtime.

Through meticulous planning and strict time controls we ensured when one part of a job was completed, the next component was arriving on-site ready to be installed.

The gym was located in the basement three floors deep rendering traditional installation methods redundant.

Working in a subterranean environment, we had to introduce bespoke lighting to overcome the lack of a natural supply and also design and install heat extraction systems given the amount of energy created in the gym.

Similarly, we had to fit smoke extraction systems to comply with the fire safety laws officers' requirements.

Due to the strict restrictions preventing us from altering the iconic building's façade, the ventilation louvres and flues had to be designed so they would not be noticed.

Retaining the existing appearance of the façade was a major part of the scheme.

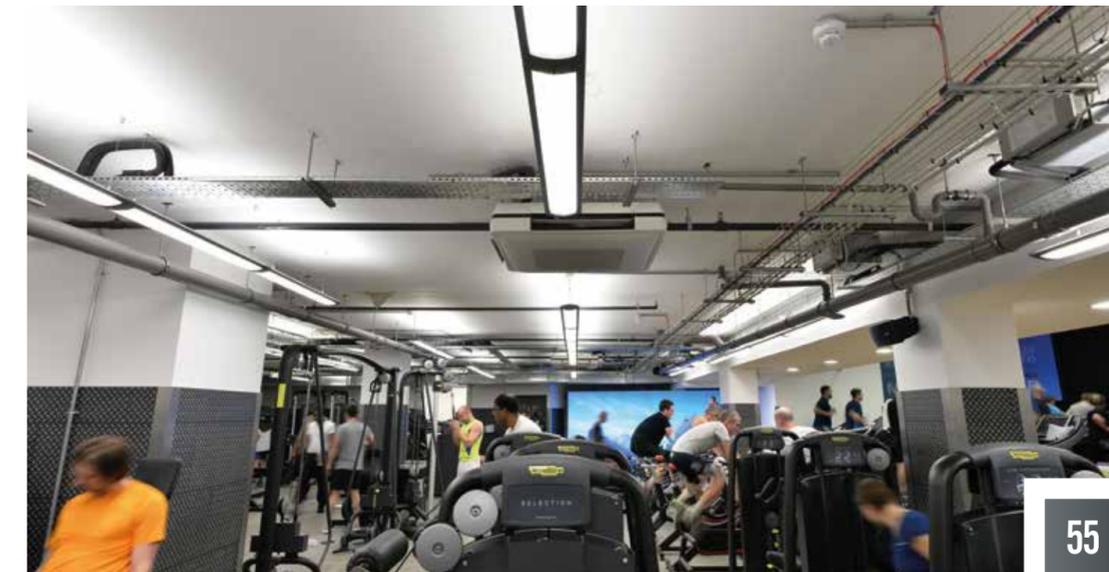
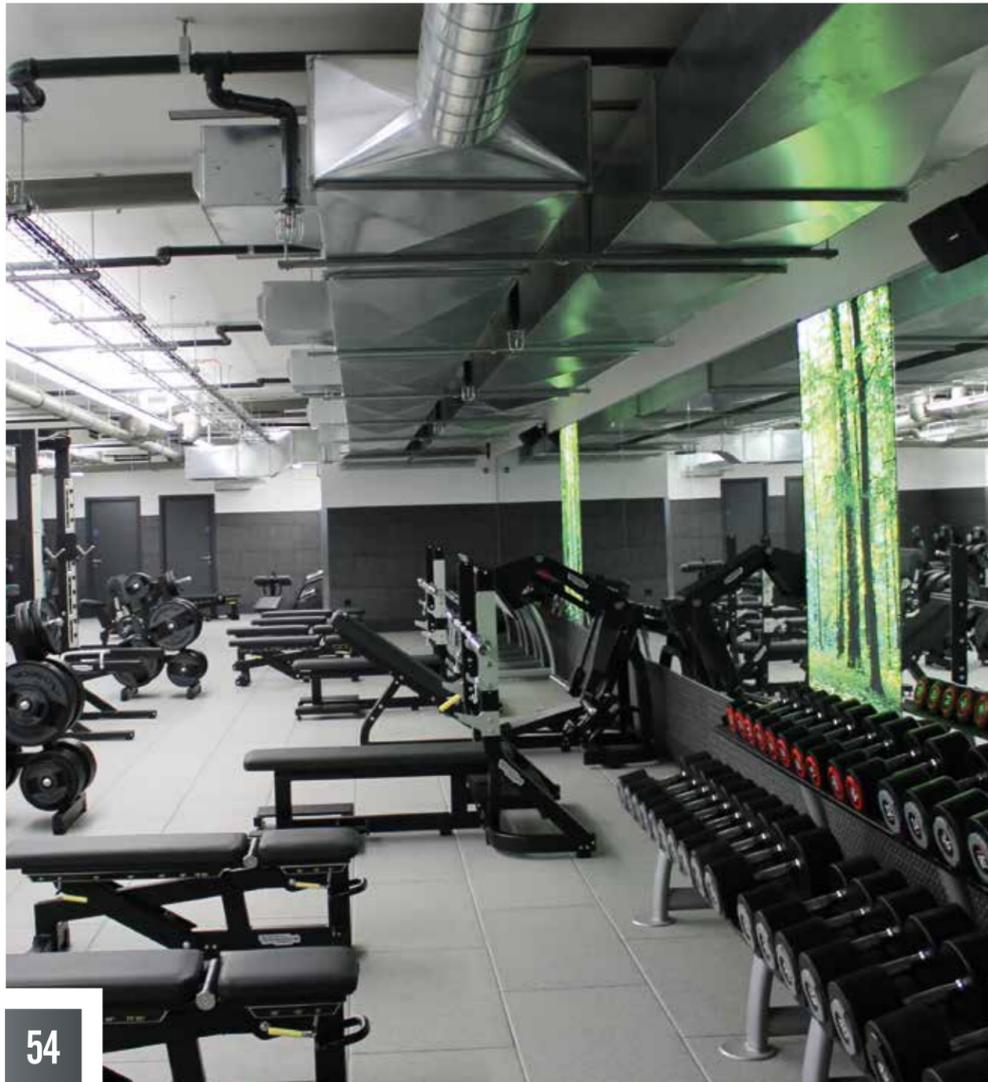
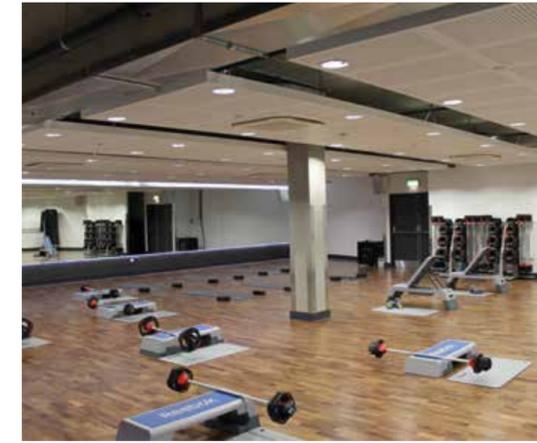
LAX Fitness wanted to create significant kerb appeal through its reception that would capture the attention of passing people, especially at night time when the gym wasn't open.

We had to reflect the upmarket brand through the lighting system despite being limited on colours and materials.

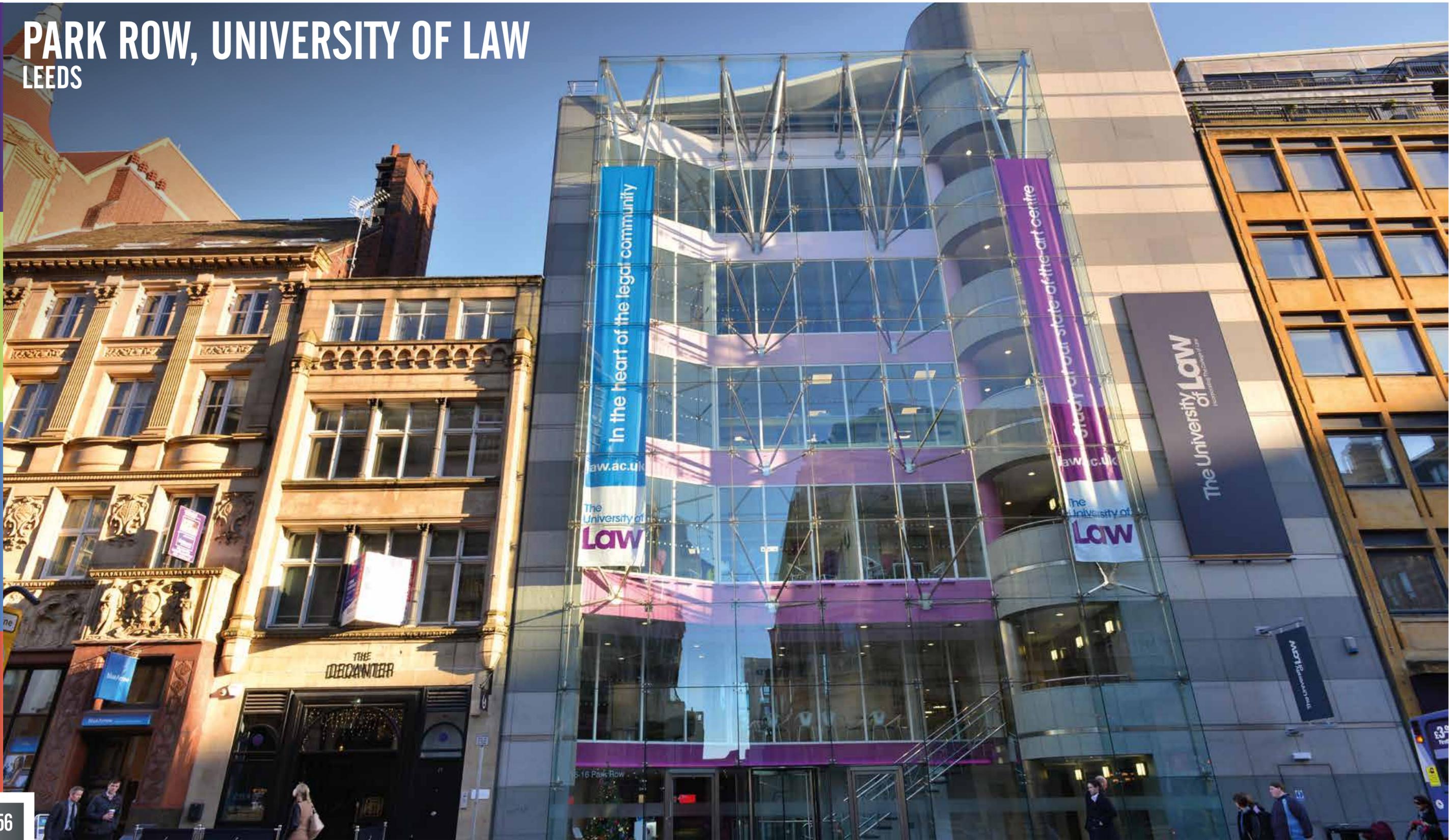
To do this we sourced architectural lighting from specialists across Europe so the street-facing reception stood out and had presence but remained in-keeping with the area and LAX Fitness' brand.

Core mechanical and electrical services were installed including PA and AV technologies and comfort cooling systems.

LAX St Botolph's opened to critical acclaim.



# PARK ROW, UNIVERSITY OF LAW LEEDS



## KEY FEATURES

- Managed complex Leeds city centre logistics and limited site access
- Organised and directed road closures for 3am
- Showed great consideration for other offices and nearby residents to minimise noise and disruption
- Total refurbishment of M&E services
- Successful project leading to further work at client's Manchester location

## THE DETAILS

**Project title:**  
Park Row, University of Law

**Location:**  
Leeds

**Client:**  
University of Law

**Services:**  
Mechanical & Electrical

**Main contractor:**  
GMI Construction

**Value:**  
£1m

## THE BRIEF

The University of Law's latest location in a distinctive glass-fronted modern building in Leeds' prime office quarter required us to carry out a total replacement of M&E services as the existing systems had reached the end of their useful life.

Home to 50 staff and nearly 400 students, it includes lecture theatres, classrooms, a library, a student café and study areas as well as top floor balconies offering panoramic views of the Leeds skyline.



## OUR APPROACH

The location provided us with a significant challenge.

Situated in the heart of the busy city centre business community, as well as delivering the work - which included full replacement of M&E services including a new VRV heating / cooling system - we also had to pay particular attention to the immediate vicinity.

We had to ensure other businesses and local residents situated adjacent to the development site were not affected by our work both inside and on the roof plant areas.

Examples of this include making sure noise levels were kept to a minimum and minimising disruption when delivering materials to the site.

By carefully planning and scheduling deliveries, we identified short windows of opportunity when residents would not be at home nor offices occupied to carry out the work that would otherwise have affected them the most.

The most invasive of works were the removal of the existing roof-mounted plant and replacing it with new AHU units and external condensing units, which required us to apply for road closures and carry out a careful operation involving multiple vehicles.

The closure took place overnight to ensure busy city centre traffic flow was not disrupted and to be ready to open again by 5am prior to the morning rush hour traffic.

A mobile crane was brought in to Leeds city centre overnight and we worked at speed to ensure as little inconvenience as possible.

The work was a huge success and resulted in us being appointed to carry out similar scale M&E services at the University of Law's Manchester location.





# ODEON

FANATICAL ABOUT FILM

## KEY FEATURES

- Demonstrated G&H's ability to work on a mixed-use development site undergoing construction
- On-site at irregular hours to ensure the work didn't affect local residents
- Met stringent noise constraints that were assessed by experts to ensure no impact on cinema goers
- Managed site logistics by implementing a precise delivery system operation
- Managed a contract crane lift for external plant items

## THE DETAILS

**Project title:**

Odeon

**Location:**

Trowbridge

**Client:**

Odeon Cinemas

**Services:**

Mechanical

**Main Contractor:**

Phelan Construction Ltd

**Value:**

£1.2m

## THE BRIEF

We were asked to design and install the mechanical services for Odeon Cinemas' newly-built Trowbridge venue.

Our work was to be carried out while the development was operational which meant it was vital we did not disrupt traffic or public access to areas of the site available to them.

We also had to liaise with contractors working on the development of an elderly persons' residential scheme and local authority offices being carried out next to the Odeon building to ensure this was not affected.



## OUR APPROACH

Careful planning ensured our work was not heard by Odeon customers while viewings were being held and we met the tests set by the appointed sound consultant and also local planning requirements.

As such a lot of the work was carried out when the cinema was not open to the public with our teams regularly on-site until 4am carrying out the required testing and commissions.

Close and regular liaison with other contractors working on the adjacent development meant there was no conflict with deliveries being made or access issues thanks to our experienced systems.

We installed a variety of mechanical features including a cash tube safety system that saw the use of pneumatics to transfer money from the payment areas at the front of the cinema to a safe in the rear so staff did not have to walk through the building with large quantities.

Other mechanical works included auditorium comfort cooling and heating, ventilation ductworks, air handling units, hot and cold water systems, sanitary ware drainage and natural gas services.



# LEEDS CITY COLLEGE

## WEST YORKSHIRE



### KEY FEATURES

- Long-standing, retained client due to on-going relationship that first started with maintenance of air conditioning systems
- Won the contract for the entire 14-site estate following a full tender exercise beating national competition to provide M&E maintenance
- Pre-planned and reactive cover of business-critical I.T. server rooms
- Ensured the estate was fully compliant to meet safety levels and in order to qualify for funding requirements as an educational institute
- High standard maintenance regime to meet energy efficient targets
- Equipment lifecycle audits allowing the client to budget and reduce reactive call out costs and inconvenience
- Reactive call outs reduced

### THE DETAILS

**Project title:**  
Leeds City College

**Location:**  
West Yorkshire

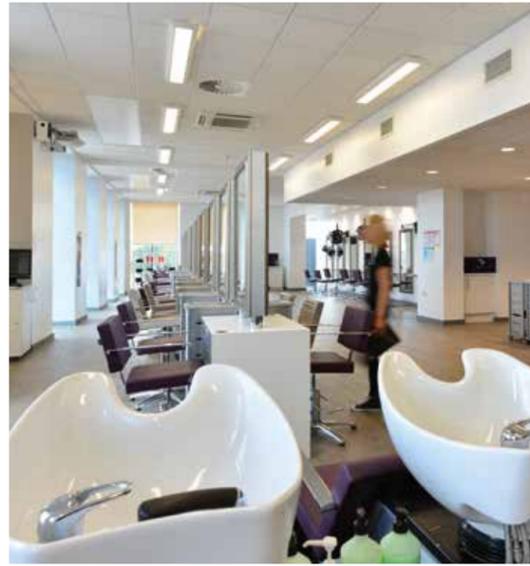
**Services:**  
M&E, ventilation, reactive and planned maintenance

**Value:**  
£75,000-a-year

## THE BRIEF

Leeds City College wanted to raise the standard of its planned maintenance and compliance across its 14-site estate in order to set standards befitting of a public building offering higher education.

Following our success maintaining air conditioning systems, we won the tender to manage the entire estate's I.T. equipment and proposed to deliver an M&E strategy that would provide consistency, be fully compliant, highlight the lifespan of equipment so precise budgeting could take place and reduce the need for emergency call outs.



## OUR APPROACH

Ensuring the maintenance of the I.T. rooms at Leeds City College is paramount given the amount of reliance on technology for the everyday teaching and learning.

To enable the M&E equipment to operate at its most efficient and be as reliable as possible, we introduced a comprehensive asset register to demonstrate to the college what its estate looked like in terms of equipment.

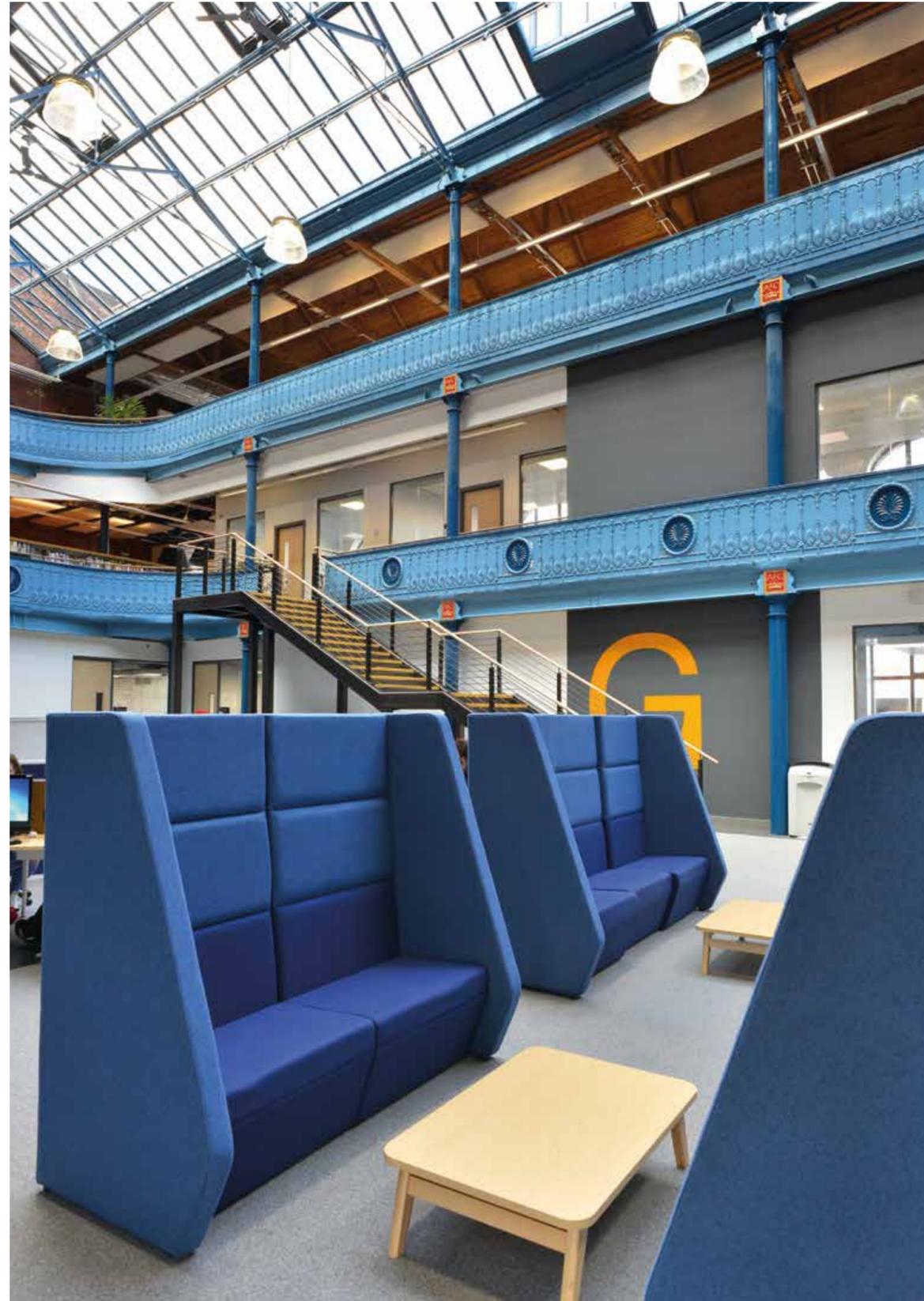
Alongside this, we conduct refrigeration tests and F-Gas certifications that were required to make sure the estate complies with industry and legal standards.

In addition to the asset register, we audited the estate's M&E to advise where efficiencies can be made.

Our work resulted in the college having full visibility of its maintenance requirements, asset lifecycles and their current conditions.

This allows the college to budget for new equipment, procure more efficiently and keep it working at its most efficient all of the time.

The regime that has been introduced has reduced the number of failures across the estate.





## KEY FEATURES

- Appointed to design, supply and install Solar Photovoltaic system for the new build superstore
- Drastically reduced the store's operational costs and electricity usage
- System designed to provide compliance with planning regulations, building regulations and ASDA energy policy
- Innovative design utilising both south and north facing roof façades
- Nominated and runner up as 'Commercial Rooftop of the Year' 2014 at the Solar Power Portal Awards

## THE DETAILS

**Project title:**  
ASDA Leicester

**Location:**  
Leicester

**Client:**  
ISG Construction

**Services:**  
System analysis, design, supply and installation

**Technology:**  
Solar PV

**Array Size:**  
246kWp – 1,625 m<sup>2</sup>

**Estimated Energy Savings:**  
197,538 kWh/annum

## THE BRIEF

As part of Asda's commitment to reducing its energy usage across its stores, sustainable energy sources are considered as part of new build installations.

G&H Sustainability were appointed by ISG Construction Ltd to design, install and commission a 246kWp system that would provide compliance with the new build specification, planning conditions and building regulations.

Working closely with the design team at DDA and construction team at ISG Plc, G&H Sustainability ensured the design and installation of the system was carried out in a timely and efficient manner to deliver on time.



## OUR APPROACH

The store's 2,200m<sup>2</sup> roof area provided enough scale for us to design a large-scale solar PV system. The 1,625m<sup>2</sup> array consists of nine hundred and eighty four 250W panels utilising both the north and south facing areas of the roof to provide maximum coverage and energy generation.

The works were carried out during the construction of the £7m new build undertaken by ISG Construction Plc. The system works to reduce the carbon footprint and operational costs of the ASDA site and has been implemented in accordance with ASDA's long term energy reduction strategy.

The project was installed, commissioned and handed over within the project deadlines enabling the store to benefit from energy savings at the earliest opportunity.

The installation was short listed as 'Commercial Rooftop Installation' at the 2014 Solar Power Awards.



# ROCKWELL COLLINS

## READING



### KEY FEATURES

- Vital, high security systems for an approved Ministry of Defence contractor
- Comprehensive category B fit-out at US-based Rockwell Collins' new centre of excellence
- Full audit of the previous centre to ensure compatibility with new systems
- Quick, 26-week design and rebuild project

### THE DETAILS

**Project title:**  
Rockwell Collins

**Location:**  
Reading

**Client:**  
BW

**Services:**  
Mechanical & Electrical

**Main Contractor:**  
BW

**Duration:**  
26 weeks

**Value:**  
£2.4m

## THE BRIEF

To deliver high-tech, secure M&E for Rockwell Collins – one of the US's leading providers of communications and aviation electronic solutions for Government organisations to meet Ministry of Defence standards.

## OUR APPROACH

The nature of Rockwell Collins' work meant we had to meet very specific requirements, making sure power, voltage and frequency supplies were compatible with those in operation in the US.

We carried out a comprehensive audit of Rockwell Collins' existing site to gain in-depth knowledge and understanding ahead of the installation.

To meet the pressing deadline we held daily liaison meetings with the main contractor to coordinate works to ensure there was no overlap or delays.

This was vital as the scale of the project saw us providing high specification M&E services in the 40,000 square feet state-of-the-art laboratory and also the 30,000 square feet of office space.

Services included air conditioning, LED lighting and close control temperature systems in server rooms.

We also co-ordinated the installation of the sprinkler and fire alarm systems being fitted by the main contractor.

We subjected the M&E services to a high level of testing to ensure all systems were exceeding required targets.

Extensive communication and management control saw us complete the work on time despite a short time frame of just 26 weeks.



# DON VALLEY ACADEMY

SHEFFIELD



## KEY FEATURES

- A fast-tracked project of 36 weeks
- 75% of the plant room was made off-site by G&H Fabrication
- Re-sequenced heating supplies to accommodate off-site district heating system
- Met tight deadlines for the Academy's September opening
- Meticulously planned to secure labour and equipment during summer holidays to ensure no downtime
- Overcame delays caused by three bombs found on site dating back to World War II

## THE DETAILS

**Project title:**  
Don Valley Academy

**Location:**  
Sheffield

**Client:**  
Oasis Community

**Services:**  
Mechanical & Electrical

**Main Contractor:**  
BAM Construction

**Duration:**  
40 weeks

**Value:**  
£3.1m

## THE BRIEF

To provide full M&E services in the new £14m Don Valley Academy in Sheffield in time for its September 2015 opening.

We were asked to complete our works to a tight deadline for a project of this magnitude, with 36 weeks given.



## OUR APPROACH

Given the short timeframe we had to design and install a large number of building services, we had to work innovatively from the start.

In order to halve the time it would take, we engaged G&H Fabrication to build as much of the services as possible off-site.

This provided a variety of major benefits.

Firstly, we could significantly speed up the welding process as 75% of the plant room was made off-site by G&H Fabrication.

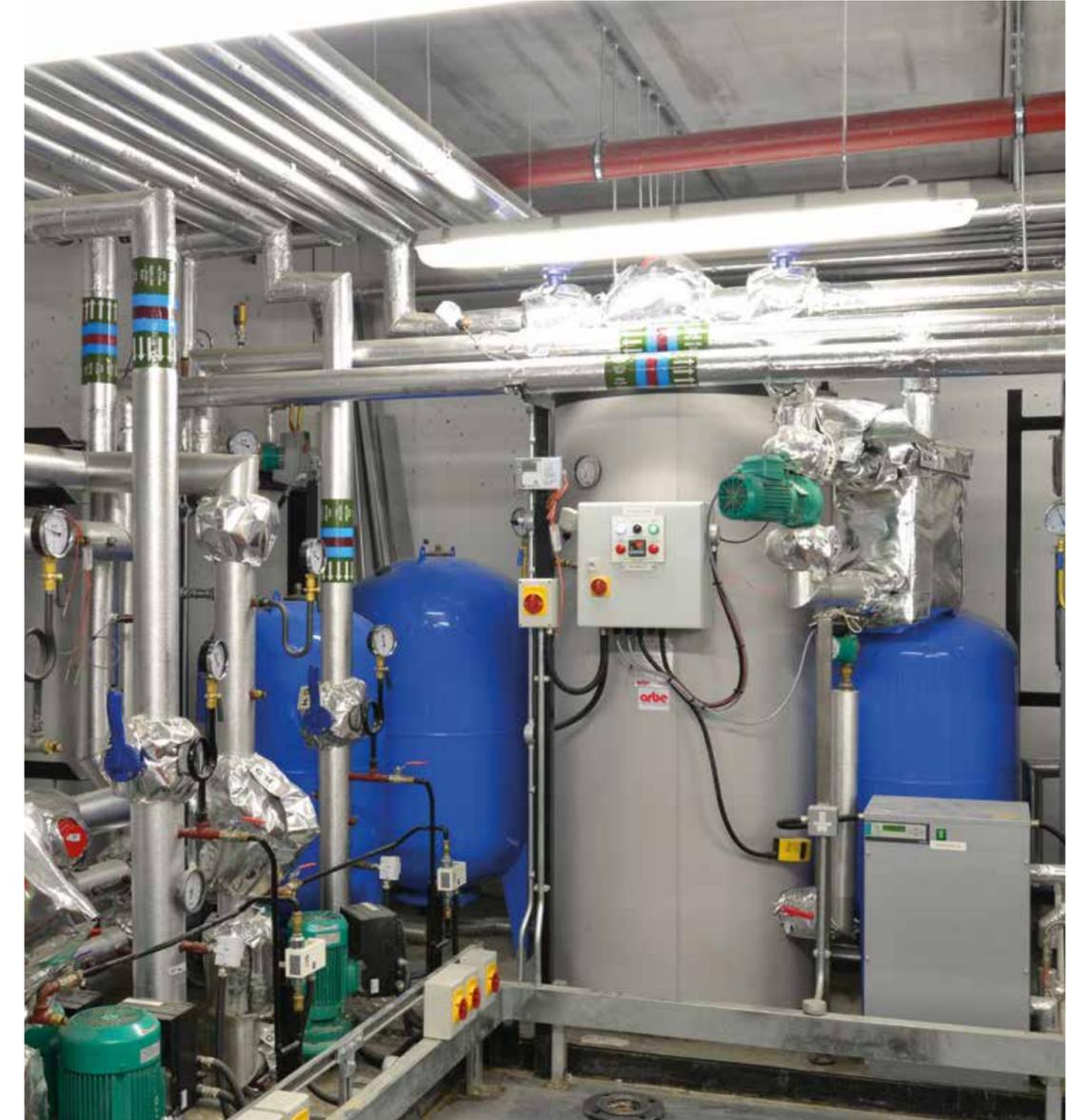
We took just three weeks to build, test, deliver and install it on a skid.

G&H Fabrication's facility makes it easier and quicker to test, enables any adjustments to be made immediately and is fully tested prior to dispatch.

As importantly as reducing production time, it reduces the amount of hot works welding on site, freeing up space for other trades and improves safety levels.

On site, we overcame logistical challenges with 60 pieces of equipment craned onto the roof.

We managed to meet all the challenges set and hand over on time and on budget, even allowing for the site being closed for several days after three bombs dating back to World War II were discovered on site.





## KEY FEATURES

- Fabrication for a large-scale, purpose-built combined heat and power on-site energy generation STOR capable of producing 20 Megawatts
- We fabricated 80% of the site's pipework off-site
- 10-tonnes of steel and copper works were made in our specialist facility
- Eight, 18" stainless steel flue pieces were among the large-scale fabrications made and delivered to site

## THE DETAILS

**Project title:**  
Energy Generation Facilities STOR

**Location:**  
Nationwide

**Client:**  
Oasis Community

**Duration:**  
20 weeks / site

**Value:**  
£1.2m

## THE BRIEF

To provide bespoke, off-site prefabricated pipework for an industrial size energy generation facility, to speed-up the construction process, improve the quality and cut costs.



## OUR APPROACH

As part of our appointment we fabricated and installed all the components required for this large scale, purpose-built combined heat and power on-site energy generation facility.

We assembled a 16-strong team of engineers, welders, site supervisors and project managers to deliver the scheme that had been pre-designed by the client.

Our works included fabrication, off-site checking, delivery, installation, (including various crane lifts), connection, and on-site testing.

The five-month-long scheme demonstrates our capacity as the site has the potential to generate 20 Megawatts of energy in just seven seconds.

Given the facility's industrial size, large individual components were made bespoke in our factory, such as eight, 18" diameter flue pieces and a 12" gas main that was 120m long.

Additionally, we fabricated the equivalent of one mile of oil and lube lines for the gas fired turbine engines.

We fabricated 10-tonnes of steel and in total, 80% of the pipework was prefabricated in our facility.

A high level of planning and liaison with the client's project team ensured the works were delivered ahead of schedule and defect-free.





# THE COMPLETE BUILDING SERVICES PROVIDER

## G&H Group Ltd

Firlands Mill, South Parade Pudsey, Leeds LS28 8AD

Telephone: 0113 255 6433 | [info@ghgc.me](mailto:info@ghgc.me) | [ghgroupofcompanies.co.uk](http://ghgroupofcompanies.co.uk)

