



**iTS CONSULTANCY**

**BUILDING SERVICES ENGINEERING**



# DEDICATED TO EXCELLENCE IN ENGINEERING DESIGN

We provide detailed design of all aspects of building services. Building service design is a significant component of the construction supply chain and is critical for design decision-making, accurate documentation, performance and cost-estimating, construction planning, managing and operating the resulting building.

We operate across many sectors including industrial, research and development, commercial, residential, retail, leisure, healthcare, hospitality and education.

The Building Services team at iTS provide design and management services relating to the mechanical, electrical and public health elements (MEP) within buildings.

Building Services elements typically account for up to 40% of the total construction cost of a new-build office project, and up to 50% of the cost of a refurbishment office project. It is therefore imperative that early consideration is given to the Building Engineering Services elements within a building, to ensure these costs are managed carefully.

iTS believe engaging a building services consultant early in any construction project is vital to any projects success. Early strategic decisions on how building services fit is essential. Services plant allocation and conceptual planning on how to deliver services such as heating, ventilation and air-conditioning need to influence key decisions.

During the operational period of a building, Building Engineering Services can be one of the main sources of complaints from tenants and can influence a tenants decisions in lease negotiations.

***“Building Services Engineers really do bring buildings to life”***

*Chartered Institute of Building Services Engineers (CIBSE)*





## BUILDING SERVICES DESIGN

The bedrock of our business is designing building services. We provide detailed design for all aspects of building services. Building service design is a significant component of the construction supply chain and is critical for design decision-making, accurate documentation, performance and cost-estimating, construction planning, managing and operating the resulting building.

Our team of M&E design engineers are there to help every step of the way. We typically work as part of the wider project team, including architects, structural engineers, project managers and quantity surveyors. Our services cover the following:

**Electrical supply  
and distribution**

**Lighting, emergency lighting  
and daylight design**

**Earthing and  
lightning protection**

**Uninterruptable power  
supplies and standby generation**

**Digital  
communication  
infrastructure**

**Fire detection and  
alarm systems**

**Cable containment  
and management**

**Security alarm, access control  
and closed circuit television**

**Lifts and other  
vertical transport**

**Air conditioning, active and  
passive cooling systems**

**Heating  
systems**

**Hot and cold water  
distribution systems**

**Building  
Management  
Systems (BMS)**

**Ventilation, kitchen and fume  
extract systems**

**Public health above  
ground drainage**



## SURVEYS, INSPECTIONS & REPORTS

We offer detailed surveys of all building services and will always conduct a thorough site survey as part of our services design. We provide concise, detailed reports on building services to enable you to resolve problems, assure yourself prior to investment, or comply with legal or contractual obligations.

- Pre-Acquisition
- Acceptance and compliance
- General condition
- Dilapidation's
- Commissioning management
- Backlog maintenance
- SAP, SBEM & EPC's
- Site services
- Feasibility Studies
- Design inspections
- Auditing surveys
- Technical appraisals
- As Installed
- Capacity issues
- Technical services management
- Incoming utilities



## FINDING THE RIGHT BUILDING

Where multiple buildings are being reviewed we can help strategic decisions on building selections, with clear factual data based on the clients this will include a comparison table of the options against the client's requirements and other useful benchmarks such as the BCO guides.

The building services surveys allow us to review the building layout to assess suitability of riser locations and plant spaces with respect to the client's requirements for any additional plant required for mission critical business operations.





## SUSTAINABILITY

Our designs build in sustainability from the outset. We can provide environmental and sustainability planning advice alongside consultancy support in the following areas:

**Building Regulations  
UK Part L (BRUKL)**

**Standard Assessment  
Procedure (SAP) Residential**

**Wellbeing  
strategies**

**Low and zero  
carbon design**

**Advice on BREEAM  
and PASSIVHAUS**

**Simplified Building Energy  
Modeling (SBEM) Commercial**



## BUILDING INFORMATION MODELING BIM

“Building Information Modelling (BIM) is an intelligent 3D model-based process that gives architecture, engineering, and construction (AEC) professionals the insight and tools to more efficiently plan, design, construct, and manage buildings and infrastructure.” (*Autodesk*)

All our design work is undertaken in house using industry standard software to ensure full coordination and integration of the design with the wider project team.



# PROJECT EXPERIENCE

We have worked for over 120 clients and have seen our presence and reputation grow based on providing the principles of good, honest service; at competitive rates for our clients.

Previous project experience includes:

- Student Accommodation
- Mixed-Use Development
- Apartments
- Hotels and leisure
- High End Residential
- Commercial
- Care Homes
- Restaurants
- Education
- Offices
- Sport and leisure
- Retail

## Commercial



**Project location:** 70 Mark Lane, London EC3R 7HT.

**Project size:** 2500m<sup>2</sup>.

**Services value:** £780,000.

**Client:** Crawford & Company. Crawford & Company is the world's largest independent claims management company, with more than 700 offices in 70 countries.

**Project description:** CAT B office fit-out over three floors including grand reception area, flexible meeting rooms, individual offices, open plan office spaces, tea points, comms room and outside terrace space.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for MEP services.

During the design stages ITS coordinated with the buildings landlord to ascertain the CAT A provisions along with the interface procedures. ITS attended various coordination meetings with the architect, client and specialist sub-contractors to ensure all elements were managed and accounted for within ITS's tendered design. This included coordination with sprinklers, gas suppression, audio visual and access control specialist contractors.







**Project location:** 30+ locations throughout the UK.

**Project size:** Ranging from 300m2 to 1800m2.

**Services Value:** Ranging from £450,000 to £1.2 Million.

**Client:** Metro Bank. Metro Bank a retail and commercial bank founded in 2010. At its launch it was the first new high street bank to launch in the United Kingdom in over 150 years.

**Project description:** The majority of the Metro Bank stores consist of a large retail banking area, office and lounge spaces. The regional stores however consist of training rooms, call centres, office space, meeting rooms, kitchens, breakout areas, comms and electrical rooms. The projects have covered refurbishment of existing buildings, including listed buildings and new buildings.

iTS have been involved in four of the large (in excess of 1100m2) regional stores where the MEP services element of the contract value was in excess of £1 Million.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for all MEP services.

During the design stages iTS are a key team member coordinating with all members of the design team, along with planners, building control, landlords and managing agents. iTS attended various coordination meetings with the architect, client and specialist sub-contractors to ensure all elements were managed and accounted for within iTS's tendered design. This includes incoming utilities, coordination with sprinklers, signage, audio visual and access control specialist contractors

iTS have weekly presence on site to attend progress meetings with the project team along with site inspections to monitor that the works were being carried out in line with the current drawings, schedules and specification.







**Project location:** 88 Wood Street, London, EC2V 7AJ.

88 Wood Street was constructed in 1995 and offers office space over 18 floors.

**Project size:** 1200m2.

**Mechanical and Electrical services value:** £850,000

**Client:** R.R. Donnelley. R.R Donnelley is an American Fortune 500 integrated communications company that provides marketing and business communications, commercial printing, and related services.

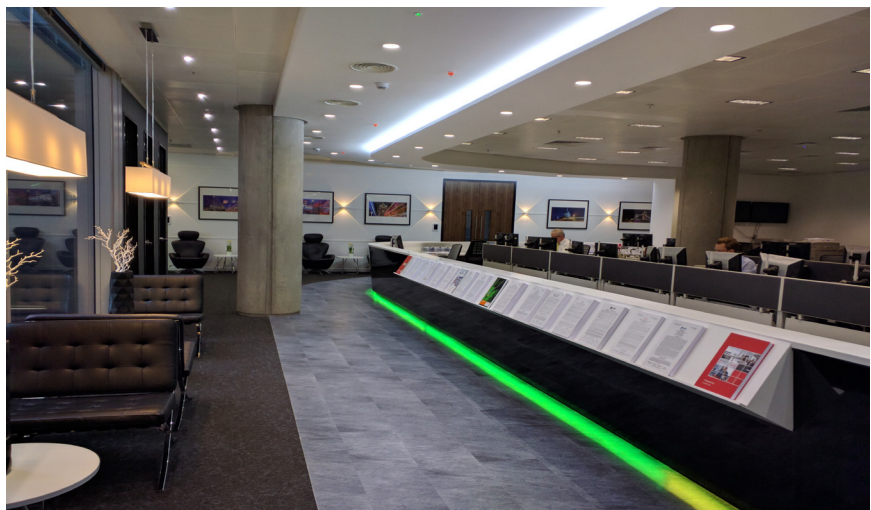
**Project description:** Refit of an existing office floor for a new tenant. The floor consisted of reception area, meeting rooms, individual offices, chat pods, open plan office spaces, break out areas, kitchen, showers, toilets and comms rooms.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for MEP services.

During the design stages iTS liaised with the buildings landlord and managing agent to understand the existing installation, as existing record information was limited, and unreliable.

The desire from the client was to retain as much of the existing services as possible, this required working with various contractors, generating a scope for condition surveys and reviewing and interpreting the results. This then enabled iTS to compile the required remedial work, along with the tender design detailing the altered and new services requirements to suit the architectural arrangement.

iTS had bi-weekly presence on site to attend progress meetings with the project team along with site inspections to monitor that the works were being carried out in line with the current drawings, schedules and specification.







**Project location:** 1 Queen Caroline St, Hammersmith, London W6 9YN.

**Project size:** 1500m<sup>2</sup>.

**Services Value:** Undisclosed.

**Client:** Funko. Funko is one of the leading creators and innovators of licensed pop culture products to a diverse range of consumers.

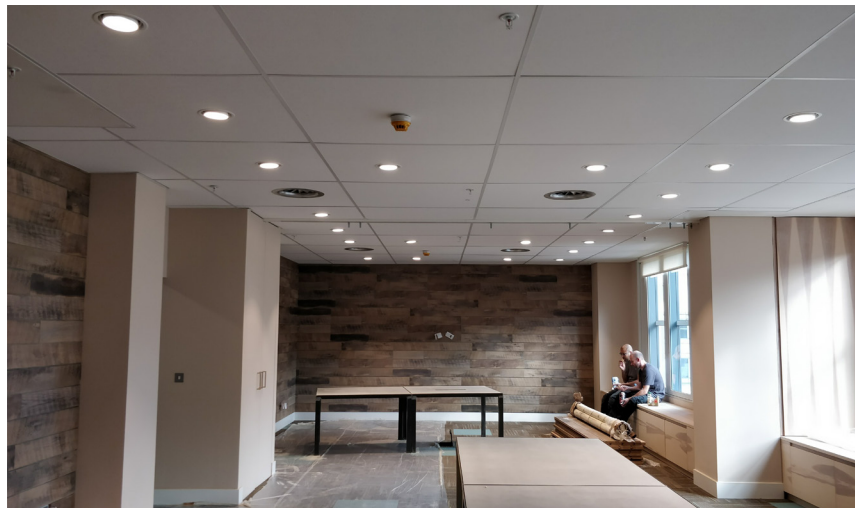
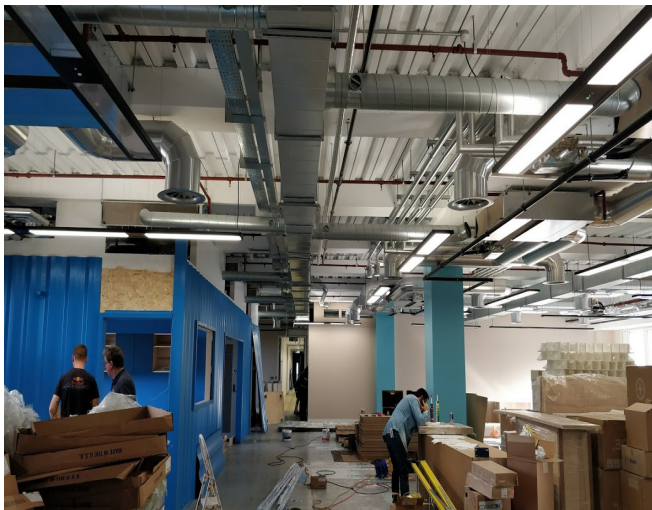
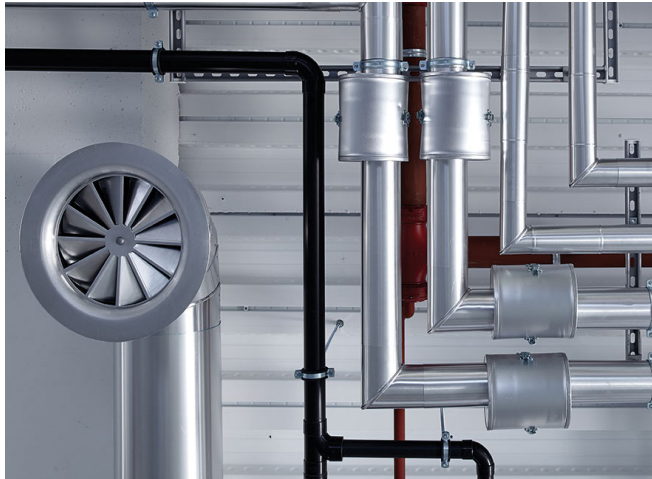
**Project description:** The project was Funko's European head office. This all new fit out consisted of open-plan, collaborative working space for the Funko team, conference rooms, breakout area. Its centrepiece is a showroom exhibiting many of Funko's new and upcoming products.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for MEP services.

During the design stages iTS liaised with the buildings landlords team to ascertain the provided CAT A provisions along with the interface processes and procedures. This included a number of meeting with the landlords team to gain sign-off on the services design.

iTS attended various coordination meetings with the architect, client and specialist sub-contractors to ensure all elements were managed and accounted for within iTS's tendered design. This included coordination with sprinklers and access control specialist contractors.

iTS had weekly presence on site to attend progress meetings with the project team along with site inspections to monitor that the works were being carried out in line with the current specification. This included attendance with various commissioning engineers to ensure the system was operating as designed.







**Project location:** Woodstock House, Winch Rd, Sittingbourne ME9 8EF

**Project size:** 900m2.

**Services Value:** Undisclosed.

**Client:** KSP. Kent Science Park is a developing cluster for innovative companies focussing on agri-tech, biotech, biopharma and more. The park has a history of innovation – including Nobel Prize winning discoveries – and was awarded the UKSPA Best Life Science Research Facility in South East England in 2016.



**Project description:** The HUB at Kent Science Park is a new build social and collaborative heart of Kent Science Park. It hosts Eco-Village restaurant, meeting rooms and office space.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for all MEP services.

During the design stages ITS instructed and managed the acquisition of a below-ground PAS128 survey, this survey highlighted the need to re-route a site wide medium temperature hot water service, along with multiple other utilities. All new incoming utilities were managed by ITS, which included a number of on site meetings with the utility providers.



ITS attended various coordination meetings with the architect, client and specialist sub-contractors to ensure all elements were managed and accounted for within ITS's tendered design.

ITS had bi-weekly presence on site to attend progress meetings with the project team along with site inspections to monitor that the works were being carried out in line with the current drawings, schedules and specification. This included attendance with various commissioning engineers to ensure the system was operating as designed.





## Retail



**Project location:** 30+ locations throughout the UK.

**Project size:** Ranging from 300m2 to 1800m2.

**Services Value:** Ranging from £450,000 to £1.2 Million.

**Client:** Metro Bank. Retail Banking. “We’ve built a different kind of high street bank. A bank with stores that are open when it suits you, 7 days a week. A bank where you can walk in without an appointment and walk out with a working account, debit card and all. A bank that tells you exactly what you’re getting, in language that actually makes sense. A bank that puts you first.”

**Project description:** The majority of the Metro Bank stores consist of a large retail banking area, office and lounge spaces. The projects have covered new builds, refurbishment of existing buildings, including listed buildings.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for MEP services.



During the design stages ITS liaised with the buildings landlord and managing agent to ascertain the CAT A provisions along with the interface processes and procedures. ITS attended various coordination meetings with the architect, client and specialist sub-contractors to ensure all elements were managed and accounted for within ITS’s tendered design. This included coordination with sprinklers, audio visual and access control specialist contractors

ITS have weekly presence on site to attend progress meetings with the project team along with site inspections to monitor that the works were being carried out in line with the current drawings, schedules and specification.







**Project location:** Bicester Village, 50 Pingle Dr, Bicester OX26 6WD

**Project size:** 240m2.

**Services Value:** Undisclosed.

**Client:** New Balance Athletics, Inc., best known as simply New Balance, is an American multinational corporation based in the Boston, Massachusetts area. The company was founded in 1906 as the “New Balance Arch Support Company” and is one of the world’s major sports footwear and apparel manufacturers.

**Project description:** New Balance Outlet Boutique is located in Bicester Village. Bicester Village is home to more than 160 boutiques of leading brands. On your visit you’ll find everything from chic restaurants to creative pop-ups and art exhibitions – plus a range of VIP services for an effortless shopping experience.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for all MEP services.

During the design stages iTS liaised with the Bicester Village design team to ensure every part of the M&E design complied with the fit out and branding requirements

iTS had weekly presence on site to attend progress meetings with the project team along with site inspections to monitor that the works were being carried out in line with the current drawings, schedules and specification. Attendance with various commissioning engineers to ensure the system was operating as designed. Attendance for snagging and sign off visits.







**Project location:** The Fort Shopping Park, Birmingham B24 9FP

**Project size:** 29,218m<sup>2</sup> retail space.

**Services Value:** Undisclosed.

**Client:** The Fort Retail Park Trust. The Fort Shopping Park, to the north east of Birmingham City Centre, one of the top five performing parks in the country.

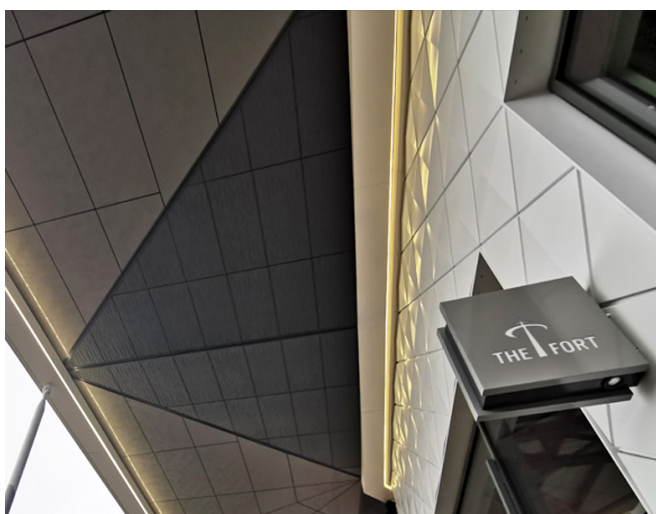
**Project description:** The shopping park consists of 40 brands and 8 food consents.



Significant investment to further enhance the success of the park and transform the shopping experience with a more open and contemporary feel, utilising double height shopfronts and a new high level canopy feature.

iTS have currently completed the first few phases of the programme. The parks ambition is to roll out the design principles across the remainder of the shopping park with an aim for completion in 2020.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for all MEP services.



During the early stages iTS carried out various site surveys to ascertain the details of the existing MEP installations. During the design stages iTS managed the incoming utility services design for all tenants, including provisions for future tenants.

iTS attended various coordination meetings with the architect, client and specialist sub-contractors to ensure all elements were managed and accounted for within iTS's tendered design.

iTS had bi-weekly presence on site to attend progress meetings with the project team along with site inspections to monitor that the works were being carried out in line with the current drawings, schedules and specification.







**Project location:** Monks Cross Shopping Park, Huntington, York YO32 9GX

**Project size:** 36,232m2 retail space.

**Services Value:** Undisclosed.

**Client:** Monks Cross Shopping Park Trustees. Monks Cross Shopping Park is home to Mothercare, Primark concept store, Clarks, Debenhams, H&M, Monsoon, Accessorize, New Look, River Island, Schuh, TK Maxx, Thomas Cook, WH Smith, Game, Laura Ashley, Primark, Costa, Pizza Hut, Starbucks, Carphone Warehouse, Evans Cycles, American Golf, Laura Ashley, EE, Boots and Superdrug.

**Project description:** Monks Cross is one of the UK's prime regional shopping destinations and attracts shoppers both locally and from afar.

ITS designed services for a series of initiatives at Monks Cross Shopping Park including façade refurbishment, six new pod units and new retail units.

The entire façade has been modernised to provide a contemporary aesthetic for the existing shopfronts. The entrance features have been greatly enhanced by boxing them in illuminated perforated cladding.

A pedestrianised 'street scene' was created to the north of the site by building four small kiosks between the existing retail frontage and the car park. These pods deliver six additional units to the park with minimal impact to the existing parking.

A further 2,100m2 retail unit is proposed to the south, creating a new gateway into the site.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for all MEP services.





# Residential

**Project location:** South West London.

**Project size:** 1,352m<sup>2</sup>.

**Services Value:** Undisclosed.

**Client:** Private.

**Project description:** New build residential property over five levels, consisting of Cinema, Bar, Swimming Pool, Jacuzzi, Gym, Wine Cellar, multiple reception rooms and five bedrooms.

**Services provided:** iTS were appointed to review the contractors Stage 4 and 5 design and build proposals and provide advise on all MEP services.

iTS had substantial on site presence over a period of 4 years to attended progress meetings with the client and project team, site inspections and witnessing commissioning.







**Project location:** Summerson House, Catherine Street, St Albans, AL3 5BJ.

**Project size:** 175m2 Ground Floor Retail.  
545m2 First and Second Floor Apartments.

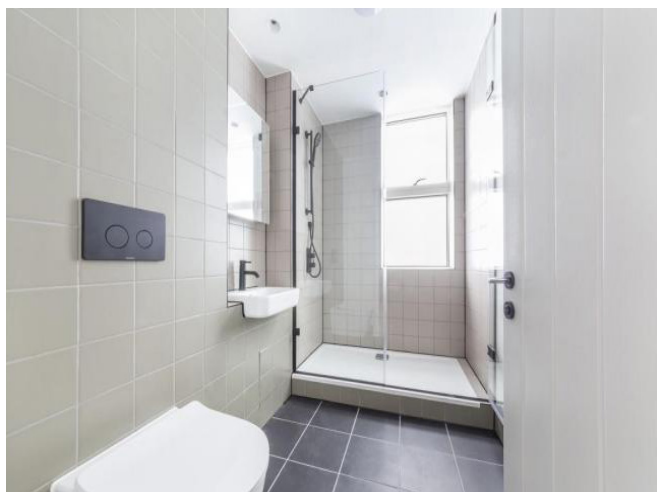
**Services Value:** Undisclosed.

**Client:** Cummings Commercial.

**Project description:** The project consisted of an infill, conversion and change of use of an existing office building to form a retail space and multiple apartments.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 3 for all MEP services.

iTS reviewed the existing site, designed an request quotations from all utility network operators, ultimately requiring a local substation upgrade. A heating analysis was undertaken and electric heating chosen, saving the client the substantial costs of upgrading the local gas network. The design included electrical distribution, external lighting, internal lighting, small power, data, access control, fire alarm, heating, water services, ventilation and above ground drainage







**Project location:** Hermitage Lane, Hampstead Heath, London, NW2 2EY.

**Project size:** 630m2 Two high specification twin four bedroom homes.

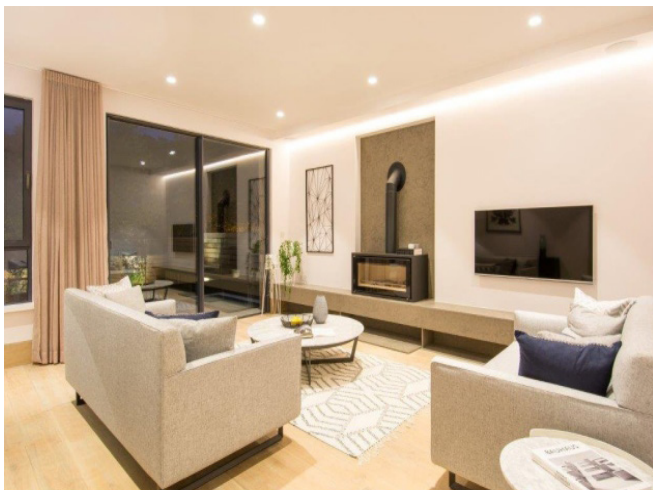
**Services Value:** Undisclosed.

**Client:** Private.

**Project description:** New development of two twin homes located on Child's Hill offers high specification luxury accommodation. Arranged over four levels, the homes boast a fully equipped cinema room, four double bedrooms and three bathrooms.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for all MEP services. The design included electrical distribution, external lighting, internal lighting, small power, data, access control, fire alarm, heating, water services, ventilation and above ground drainage.

The design met with The Code for Sustainable Homes level 3. This included implementing, gas flue heat recovery, waste water heat recovery and mechanical ventilation with heat recovery







**Project location:** Thompsons Close, Harpenden  
AL5 4ES

**Project size:** 608m2 three bedroom apartments.

**Services Value:** Undisclosed.

**Client:** Private.

**Project description:** The project consisted of an extension, conversion and change of use of an existing building containing office and retail space to form multiple luxury apartments.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 3 for MEP services.

iTS reviewed the existing site, designed and made applications for all incoming utility services. The design included detailed room data sheets covering electrical distribution, external lighting, internal lighting, small power, data, access control, fire alarm, heating, water services and ventilation.

iTS had site presence to attended meetings with the client to discuss the design. Along with site presence to discuss the utilities with the district network operators.







**Project location:** The Ridgeway, St Albans AL4 9NX

**Project size:** 1,730m<sup>2</sup>

**Project Value:** £3.5 Million.

**Client:** Sandringham School

**Project description:** The project consisted of a new build teaching building over 2 floors. Incorporating 12 extra-sized classrooms, an IT suite and 3 super-sized science laboratories, The project also features various offices, a seminar room, a network support room and a large open space on each floor.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for all MEP services.

The design included laboratory gas distribution, gas interlock air conditioning, mechanical ventilation with heat recovery, wind-catchers, CAT5 boosted cold water, hot water, underfloor heating, above ground drainage, electrical distribution, lighting, small power, data and fire alarms.

iTS had substantial on site presence to attend design meetings with the client and project team, to discuss and progress the design.

iTS attended project meetings and carried out site inspections throughout the construction period, to monitor works and ensure they were being carried out in accordance with the current drawings, schedules and specification.

iTS attended site to witness various commissioning activities along with the commissioning engineers to ensure the system was operating as designed.







**Project location:** Sandridgebury Lane, St Albans AL3 6DB

**Project size:** 850m2

**Project Value:** £1.75 Million.

**Client:** St Albans Girls School

**Project description:** The project consisted of a new build teaching block over two floors. The new teaching block provides 8 classrooms and a large open plan library.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for all MEP services.



The design included mechanical ventilation with heat recovery, wind-catchers, water services, underfloor heating, above ground drainage, electrical distribution, lighting, small power, data and fire alarms.

ITS attended project meetings and carried out site inspections throughout the construction period, to monitor works and ensure they were being carried out in accordance with the current drawings, schedules and specification. This included witnessing various commissioning activities to ensure the system was operating as designed.







**Project location:** The Ridgeway, St Albans AL4 9NX

**Project size:** 525m2

**Project Value:** Undisclosed.

**Client:** Sandringham School.

**Project description:** The project consisted of a new build specialist drama block. The new block provides 3 specialist drama spaces.

**Services provided:** Design from RIBA Stage 2 through to RIBA Stage 4 for all MEP services.



The design included mechanical ventilation with heat recovery, water services, air to water heat pump paired with underfloor heating, electrical distribution, lighting, small power, data and fire alarms. The air source heat pump system was designed to ensure compliance with with renewable heat incentive (RHI) scheme.

iTS attended site throughout the construction period to attend project meetings and carry out site inspections, to monitor that the works were being carried out in line with the current drawings, schedules and specification. This included witnessing various commissioning activities to ensure the system was operating as designed.







**READY TO TALK?**



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**[www.iTSConsultancy.co.uk](http://www.iTSConsultancy.co.uk)**

***"Sometimes all you need is a different perspective to see the solution"***

