

Case Study: M&E Refurbishment East Manchester Academy

Case Study: Education






Client: Truline Construction Ltd

Sector: Education

Completed: Phase 1 October 2024

Budget: £1.1M

Services Used

-  M&E designs
-  Electrical Engineering
-  Mechanical Engineering
-  BMS Engineers
-  Test & Commissioning



M&E design and installation – refurbishment and re-modelling.

Site:

The East Manchester Academy is a coeducational secondary school located in the Beswick area of Manchester.

Contract Arrangements:

We initially collaborated with Truline during the tender and value engineering (VE) stages of the project acquisition. This early involvement allowed us to contribute to the project's development and align our goals. Following Truline's successful appointment as the main contractor, we proceeded to negotiate our contract, ensuring a seamless transition and a clear understanding of the project's scope and expectations.

Project Scope:

The project was a comprehensive refurbishment and re-modelling initiative that transformed the existing teaching spaces within The East Manchester Academy. Spanning across three wings and three floors, the project aimed to modernize the educational environment to better serve the needs of students and staff. The scope of work included the creation of new facilities to enhance practical learning experiences for all that attend the Academy.

The drama studios were another significant addition, offering a dedicated space for the performing arts, complete with appropriate acoustics and lighting to enhance the teaching and learning of drama. The changing room areas were also upgraded, providing students with modern and comfortable facilities to meet their needs.

This extensive refurbishment and re-modelling project not only improved the functionality and aesthetics of the academy's facilities but also contributed to creating an environment that promotes fun, stimulating, and effective teaching and learning. The new and upgraded spaces are expected to have a positive impact on the overall educational experience, fostering a more engaging and supportive atmosphere for both students and staff.

Electrical Works:

- Strip out existing electrical installation
- Install new distribution boards and modify existing circuits
- Install energy-efficient LED luminaires throughout refurbished and new areas
- Install new emergency lighting
- Install new lighting sensors
- Install new small power outlets, including dedicated IT equipment, kitchen appliances, and mechanical services
- Modify the existing fire alarm system and extend to meet new layout requirements

Mechanical Works:

All the mechanical design works. Which included:

- Supplying and installing the air conditioning condensers plant and equipment and ventilation systems
- BMS upgrades
- Low-temperature hot water modifications
- Installing domestic services, including new sanitaryware



Project Challenges:

Working on a project of this scale within a live school environment required meticulous planning and a strong focus on safety. We worked closely with the client to design a comprehensive programme that prioritized high-impact tasks during the Summer Holidays and Half-Term periods when the school was empty. For any works that needed to continue during term time, we coordinated closely with school administrators to identify the least disruptive times for construction activities for staff and students.

Safety was our top priority within the Academy. We established clear zones for construction and ensured these were securely segregated from areas accessible by staff and students. Our Site Manager conducted daily safety briefings to address any potential hazards and to reinforce the importance of vigilance in a live environment where traffic from staff and students flowed.

Regular communication between us, the client and the school were key to this project. We provided daily and weekly updates on progress and upcoming work to ensure all



stakeholders were aware of our activities. We also listened to feedback from the school to address any concerns promptly around works or changes to students' schedules and adapt our works to these.

As work was taking place at times in a live teaching environment, noisy or disruptive work was scheduled outside of school hours wherever possible. We used tools and equipment designed to minimize noise and dust and employed dust extraction systems to maintain air quality. Our team remained flexible, ready to adjust plans at short notice in response to the school's needs or unexpected events. We ensured that all work areas were left clean and safe at the end of each day, allowing the school to function normally.

Adherence to health and safety regulations, as well as the school's own policies and procedures were monitored daily. Regular inspections and audits were carried out and recorded to ensure compliance and to identify any areas for improvement.

By implementing these measures, we were able to carry out the project efficiently and safely, with minimal disruption to the school's daily activities. The success of this approach from the Project Manager down to the contractors on site through to the contract support staff in the office is a testament to the careful planning, dedication, and attention to detail from all our teams who made this project a success for East Manchester Academy.

The Results:

The Benefits to the Academy are that Students and Staff now enjoy state-of-the-art facilities that are not only energy-efficient but also designed to provide a comfortable, stimulating, and conducive learning environment. The new electrical systems are expected to result in significant energy savings, contributing to the Academy's sustainability efforts and savings in their annual budget. The upgraded facilities will enhance the overall learning experience for students and staff which will generate a more positive experience for all users at the Academy.

Working closely with the client we made sure that we were meeting their expectations and to quickly resolve any issues, which made them very happy. From the start, we built a cooperative and honest relationship, creating trust and clear communication to deliver on time and to agreed costs this expansion project.

