

Metquarter, Liverpool



Project Outline

Contractor	Metquarter, Shopping Centre
Location	Liverpool, United Kingdom
Sector	Retail
Disciplines Covered	Fire Detection Aspirating Detection Wireless Fire Detection Voice Evacuation Emergency Voice Communication Sprinkler Systems

Project Overview

The Metquarter Liverpool is the third biggest shopping centre in the city. Initially serving as Liverpool's General Post Office, it still boasts a grade 2 listed French chateau-style frontage combined with fresh new contemporary additions. It is home to a host of high-end luxury brands and eateries. Meaning only a high-end fire detection and protection system would be the solution to protecting the building.

The Challenge

Protec has been at the heart of the life safety systems of the Metquarter's building since its renovation to a shopping complex in 2006. The structure has changed with the times, and in that, it has seen changes to the building footprint and floor layouts, meaning Protec has carried out multiple upgrades to the life safety systems since the initial repurpose in 2006.

Metquarter, Liverpool

With the change of layout comes distinct challenges. Keeping a life safety system intact while upgrades are carried out and ensuring the shopping complex can still trade is essential to the contracts. Phasing works, clever planning, and innovative engineering are paramount to a successful project.

The building is home to several high-end luxury shops, and it's apparent in today's world where image is everything, this hasn't stopped the Metquarter's approach to providing fire detection or fire protection systems. Aesthetics are essential to several elements of this project; these were duly considered whilst successfully meeting the client's requirements and demands of the associated industry standards.

The challenge in this instance was to provide a solution to the demanding constraints concerning when and where works can be carried out while a building's life safety systems remain intact. The life safety systems would also, in some cases, have to be blended into the design of the building, being unobtrusive and, if not possible, to form part of the aesthetics of the areas.

The Solution

Fire Detection – Protec initially installed the fire alarm system, which has seen the building layout develop over recent years. Meaning shop units have been created, merged or removed to suit new Tenants' requirements.

In recent years the Metquarter underwent a part refurbishment seeing works to many shop units and back of house areas. It meant that existing fire detection devices were to be removed, relocated, or added to cover the new areas; however, all this was to be done while keeping an element of the shopping centre open to trade. The time constraint meant Protec's installation teams carried out regular and out-of-hours working times. The working method ensures that any work involving the live-fire alarm system occurred while no members of the public were in the building.

Aspirating Detection – The shopping mall area is home to an atrium of over ten meters high. The height of the Atrium means that point type smoke detection would be unsuitable for both the compliance and ongoing maintenance, leaving only two viable solutions, either beam detection or aspirating smoke detection system.

The Metquarter atrium benefits from the latter of the two. Aspirating detectors were preferred due to the ease of maintenance and their aesthetically pleasing approach. Aspirating pipes are mounted to the structure and come in white or grey in addition to standard red, as these are sometimes preferred to match contemporary ceiling colours. In some cases, the pipes are mounted above the ceiling, with capillary pipes dropped into the area of protection. The method proves an excellent solution as it means an almost invisible approach to fire detection.

Wireless Fire Detection – As part of the refit works, elements of the fire detection system would need to be isolated while works were underway. Whilst these fire alarm devices were disabled an operational temporary fire detection system was still required to protect life and property.

In this instance, Protec took a hybrid approach to the task at hand. Using a selection from our wireless fire alarm devices linked to the existing shopping mall's active fire alarm system, to ensure adequate detection was supplied to areas undergoing refit works. This innovative technology provided a quick and effective solution to temporary fire detection.

Voice Evacuation – The Metquarter benefits from its fire alarm being in the form of a voice evacuation system. This means all the areas where the fire alarm system was to undergo changes the same would apply for the voice evacuation system. Several speakers were removed, relocated, and added, and the circuits changed to suit the new system design. Works were phased in the same way as the fire alarm, meaning that no system testing would occur while the public were in the building, so that works would not disrupt businesses or customers alike.

Metquarter, Liverpool

Emergency Voice Communication System – The Metquarter benefits from a fully compliant BS 5839-9 emergency voice communication system. The system offers full-duplex communication between the front-end control panel at the fireman's entrance and outstations located strategically around the site.

Sprinkler System – In 2021, parts of the Metquarter were redesigned to make way for a new food court; this was called the 'GPO' as a nod to the building's original use as Liverpool's General Post Office. The food court is Liverpool's largest food hall and home to many coffee shops and eateries.

The new fresh and contemporary food hall's excellent aesthetics are crucial to offering customers a warm and relaxed environment. It required some of the fixed services to blend into this environment. The GPO has several suspended planters that sit over the food court area. The client required the sprinkler pipework to integrate into the building design and flow around the suspended planters forming part of the GPO's contemporary look.

The pipework bends and flows up and down structural RSJ's and in and out of deep voids making the sprinkler pipework a form of art in its own way. All pipework was painted white to match the décor and become part of its surroundings. A step away from the typical vibrant red that sprinkler pipework tends to be.

All works were carried out by Protec Camerfield Ltd, the mechanical engineering arm of Protec Fire and Security Group Ltd. As with other works on the site, elements would be done in a phased work situation to ensure as little disruption to the customers as possible. It called for good communication between Protec Camerfield Ltd, Building Control and the client with in-depth surveys ready for correct designs to be created and a fluid and precise plan of action implemented to ensure works were completed on time in budget and going on to exceed the clients' aspirations.

The Aftercare

As the fire alarm systems provided a feature with an open protocol system, it has enabled the customers chosen maintenance provider to maintain the systems. Should the client ever want to revert to a Protec managed system, this can be done simply by contacting our service team, which will swiftly assist in taking it back under the Protec service and maintenance umbrella.

As with the fire alarm system, the sprinkler services can also be serviced and maintained by a third party contractor, giving the client the freedom to use whoever they want. It proves beneficial in larger companies that own many projects and employ their incumbent service and maintenance provider to look after the systems as one extensive property portfolio across all their sites.