

## Description

- ◆ The refurbishment on an existing 2-storey 3,000m<sup>2</sup> facility, originally constructed in 1996. Creation of a training and conference centre for the Office of the Police & Crime Commissioner for Gloucestershire (PCC) providing the building a 5-year life extension, reusing existing systems and plant where suitable
- ◆ The building is a traditional pavilion style providing mainly open plan office accommodation arranged around a central core with a wraparound floor plate. There are two staircases within the building between the ground and first floors. The plant rooms are located in the roof space
- ◆ Constructed from reinforced structural concrete frame with waffle type reinforced concrete floor structure and additional supporting steelwork. The roof is a cut timber roof supported off steelwork and covered with artificial slate tiles
- ◆ Refurbishment to create space for non-operational policing uses, including: police officer and staff training; conference facility; storage; driver training unit; administrative offices.



## Benefits Delivered

- ◆ We worked proactively with the contractor as part of a collaborative design team. The project required early review of plant and services distribution routes to overcome co-ordination challenges. To address the spatial challenges the drawings were generated in Autodesk Revit. The Revit model was incorporated into the Architectural Building Information Model to enable a coordinated deliverable
- ◆ We worked with the client and the contractor to give advice on the risk and opportunities associated with the existing plant and equipment. This identified the opportunity to re-use the existing primary air handling plant and switchgear, aiding delivery of the scheme within the project budget
- ◆ Thorough interrogation of the brief and in-depth engagement with the scheme. Worked with end users and stakeholders to fully consider the building needs. Looked beyond the immediate project goals and identified resilience and flexibility requirements at an early stage
- ◆ Completed within rigid timescales to allow the contractor to finalise the works cost, and subsequent agreement of the contract sum meeting a challenging programme.

## Involvement

- ◆ Established the extent and condition of the existing electrical and mechanical services installations. Reported on compliance and suitability of systems to be re-used safely for the new building function and arrangement
- ◆ Identified the spatial constraints in the existing building. Establish strategy for services distribution throughout including risers, ceiling voids and plant rooms
- ◆ Undertook full thermal overheating analysis to identify comfort conditions in densely populated spaces. This informed ventilation strategies to maximise occupant comfort
- ◆ Detailed design of building mechanical and electrical engineering services including full production of detailed design information in Revit MEP to inform the Building Information Model
- ◆ Design of enhanced security systems across the site including closed circuit television (CCTV) systems monitoring the perimeter and key entry positions, and compatible access control systems to secure areas
- ◆ Identified energy saving measures with replacement including ultra-low energy LED luminaire replacements, daylight and occupancy controls and building management system to regulate and monitor overall energy use.



*This energy efficient refurbishment, providing flexible training and office accommodation has been successfully designed to optimise the building within a tight client budget*