

# Fire protection

## AQ3000 case study

Residential Home – Senior citizens

### Project

Local Authority Housing, West Midlands, England

### Fire risk analysis

An independent fire risk analysis of twin residential tower blocks, indicated that the ground floors had several areas that were at risk. These risks affected the escape routes from the building. The blocks were used as dedicated sheltered accommodation for retired men and women, some of whom had disabilities and limited mobility.

Areas identified at risk included the storage areas, kitchen, offices and the communal lounge.

### Further information

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### Solution

Residential fire sprinklers were chosen to protect the affected areas. The existing water supply was deemed suitable for the system, and no additional water or tanks were required. Often in high-rise buildings the water pressure is very good, as the water system is designed to reach the top floors under all circumstances. A 2" riser was more than sufficient to supply the potential water needs of the sprinklers to the ground floor. Due to the nature of the building layout, the sprinkler pipe work had to be surface mounted and the system comprised both pendent and sidewall type heads. These were carefully installed to ensure minimum disruption as the building was in fully occupied throughout the installation.

The sprinkler system connected to the in house fire alarm so that a general fire alarm would occur if the sprinkler activated.

Within a few weeks of the handover, a fire in one of the storage areas was successfully extinguished when a single sprinkler head operated to put out the fire.

