

# CASE STUDY

## ONE SE8, GREENWICH, LONDON MIXED-USE



fire design solutions



FDS provides smoke venting systems for Greenwich mixed-use development. Combining a hotel with residential and retail units, the St James Group's One SE8 mixed-use development provides high-end living spaces for both residents and visitors of Greenwich.

Initially brought on board by St James to carry out computational fluid dynamics (CFD) modelling, Fire Design Solutions identified and designed the most suitable fire safety system for the building, which comprises of a Travel Lodge hotel flanked by two residential wings including 103 apartments, a 24 metre lap pool, on site restaurant and convenience store.

Returning to the site after being appointed by electrical contractors GW & E Wright Ltd., FDS installed both natural and mechanical smoke ventilation systems, as well as a GSM auto dialler system at the client's request. In the event of fire this notifies building managers and concierge in the hotel, sending a text to a nominated manager to alert them before calling all other nominated persons if the system is not reset within a defined time constraint.

FDS installed a total of three 0.5m<sup>2</sup> mechanical smoke ventilation shafts in the building's residential wings, with one serving 'Wing A's 1st to 6th floors, joined by a make up air shaft which was installed for environmental purposes. Two further 0.5m<sup>2</sup> shafts, fitted in 'Wing B' served the upper ground to 6th floors, while an additional 1.5m<sup>2</sup> natural smoke shaft supplemented this. Corridor detection systems were installed in both of the wings to trigger the mechanical smoke ventilation systems in the event of fire.

The 90 bed hotel was also fitted with a mechanical smoke venting system including a 0.5m<sup>2</sup> shaft, serving the 1st to 6th floors with fans being fitted at roof level.

By protecting the means of escape and fire fighter access for the development, FDS' systems provided safety benefits, while also operating on a day-to-day basis to provide ventilation for the common corridors. FDS was also able to interface its mechanical smoke venting system with a fire alarm installed on site by a third party.

Type of project:  
Mixed-use

Client:  
St James Group

Architect:  
EPR Architects

