

CASE STUDY



ST MICHAEL'S SCHOOL | EDUCATION



fds consult

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A major redevelopment project to update St Michael's Catholic School in Bermondsey, this scheme involved the transformation of the existing school site to offer better student circulation, inspirational learning spaces and state of the art information technology services. The newly rebuilt three-storey school accommodates 600 students and its contemporary design comprises multiple horseshoe-shaped structures with bridges at the upper levels connecting the different wings.

It was the architectural emphasis on an open structure with all areas of the school leading to its central heart that made an effective fire strategy so essential: a fire anywhere in the building could impact on all occupants on any level. As a result, FDS Consult was brought in to address this challenge with its innovative approach to fire engineering and the company's expert team was able to demonstrate that the multi-faceted solution it proposed would provide acceptable escape routes in the event of a fire, regardless of the fire's location.

To satisfy the school's insurance requirements, sprinklers had been specified within the school and the FDS Consult team was able to utilise the sprinklers' suppression capabilities within the creative solution proposed.

FDS Consult devised an innovative solution that:

- Maximised compartmentation based on sprinkler suppression capabilities, avoiding the need for smoke venting to the circulation zone
- Optimised and reduced the fire resistance to facades, achieving cost reductions
- Reduced the fire protection to the building's structural elements, which also provided cost savings
- Justified extended travel distances
- Rationalised the building's fire alarm and detection systems

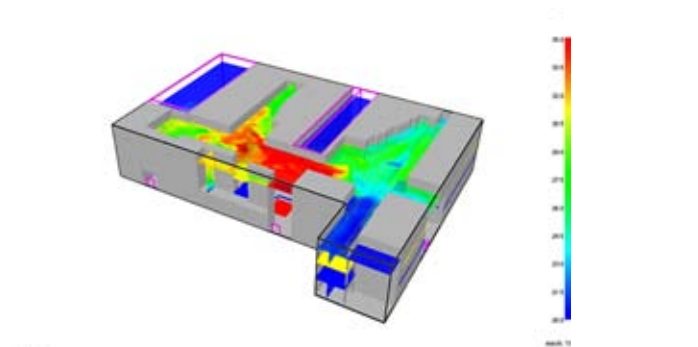
Thanks to FDS Consult's experience and innovative approach the client benefitted from total fire systems savings in the region of £370K and the project remained true to the original vision of the architect and the client. FDS Consult was able to achieve all of this and gain approval for the building by using the company's CFD modelling expertise to demonstrate that tenable conditions would be maintained throughout the building, regardless of the location of any fire, long after an evacuation was complete.

Type of project:
School redevelopment

Client:
London Borough of Southwark

Architect:
Building Design Partnership

Contractor
Balfour Beatty



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