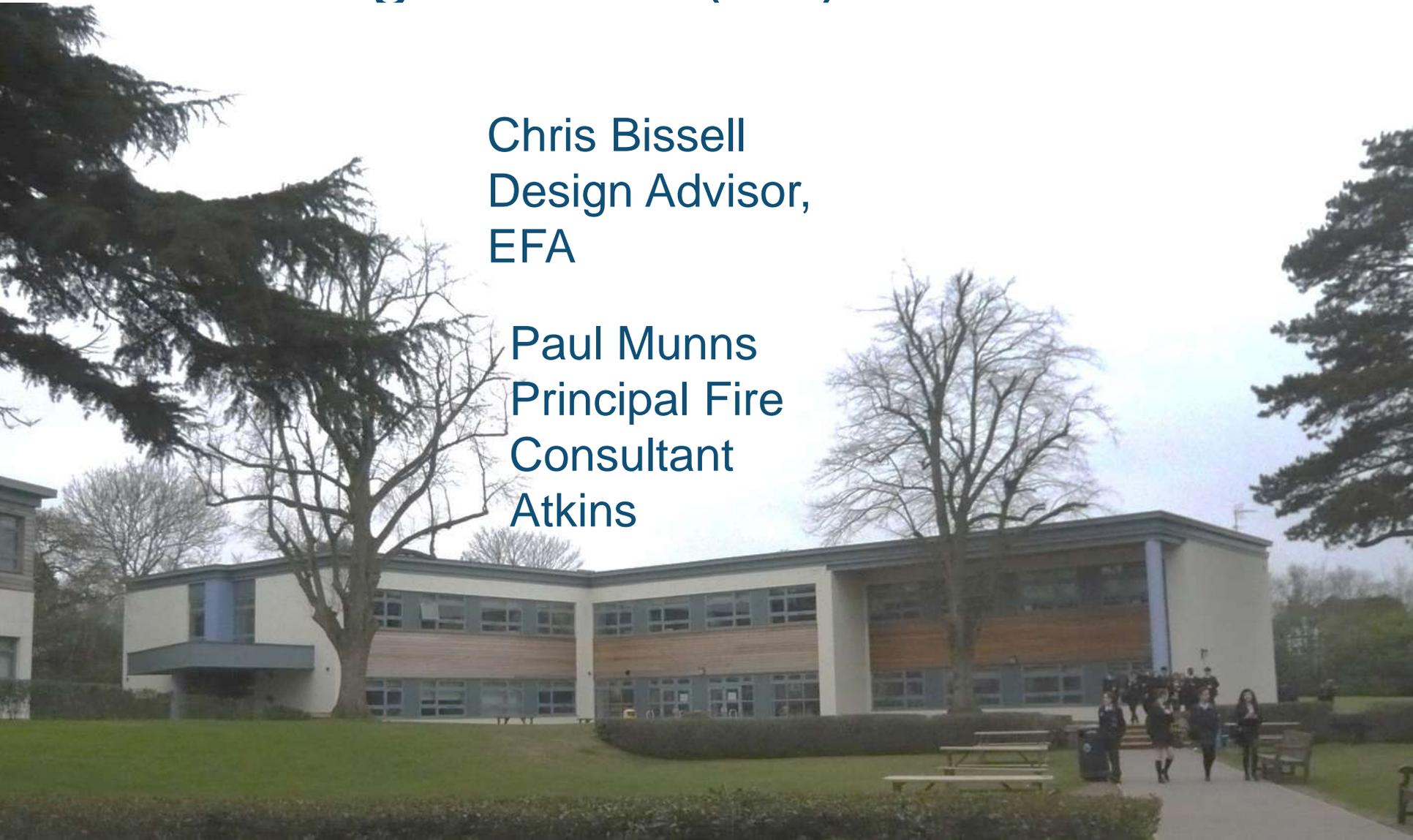


Fire Safety Design for Schools – Building Bulletin (BB) 100 Revised

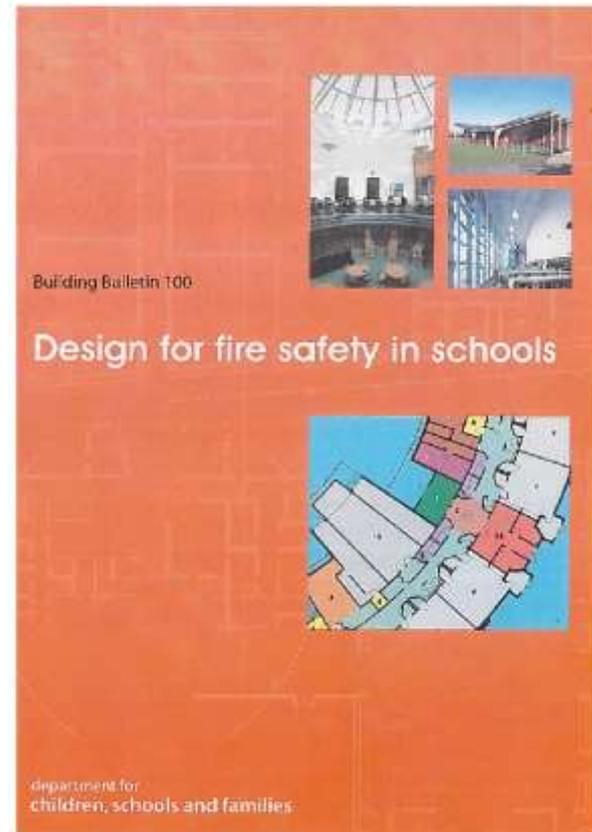
Chris Bissell
Design Advisor,
EFA

Paul Munns
Principal Fire
Consultant
Atkins



BB 100

- Published in 2007, BB 100, “Fire Safety Design for Schools”, advised on how to design school buildings so that they satisfied Building Regulations Part B, “Fire Safety”. It needed revising for a number of reasons, but particularly because some of its content was out of date, it needed simplifying and it was far too long. A new version has been produced which achieves those aims and is about half the length of the original.



Why does it need revising?

- Published in 2007, BB 100, “Fire Safety Design for Schools”, advised on how to design school buildings so that they satisfied Building Regulations Part B, “Fire Safety”. It needed revising for a number of reasons, but particularly because some of its content was out of date, it needed simplifying and it was far too long. A new version has been produced which achieves those aims and is about half the length of the original.

Updating - for example

- BS 9999, “Code of Practice for fire safety in the design, management and use of buildings”, similarly provides guidance on how to meet Part B and is acceptable for school building design. It attributes a risk profile to the building, based on the occupancy characteristics and the likely rate of fire growth. It also embodies elements of a codified approach to fire engineering by allowing increases in travel distances and reduction in exit widths if additional fire safety measures are provided; and similarly reduction in periods of fire resistance if certain ventilation conditions are satisfied.

EFA baseline designs

1120place 11-18 Secondary school finger block - Ground floor plan





Simplification, omission

Fire Risk Assessment Tool

- This tool in BB 100 assesses most new school buildings as medium to high risk of suffering an arson attack.
- It is clearly faulty

Statistics

- BB 100 says that, in 2007, 1 in 20 schools suffered a school fire.
- That means 19 out of 20 didn't.
- BB 100 also says that nearly 60% of those fires were deliberately set.
- Therefore the arson risk is even lower.

Data on School fires

Academic Year	School Fires (UK)	Deliberately set	N-F Casualties
2006/07	1200	522 (41%)	13
2013/14	600	134 (22%)	1

Cost-Benefit Analysis

BB 100 includes a cost-benefit analysis of installing fire sprinklers, which is now out of date.

Secondary 1200 place superbloc - based on GIFA 8800 m²

Sprinkler only with voids –

using normal incoming water main £26.30/m² £231,400 total

Sprinkler full compliance with voids –

using separate water main; tank; pump £36.21/m² £318,700 total

April 2016 figures

Talking of sprinklers

- BB 100 contained policy statements on the use of sprinklers for property protection and has been widely misinterpreted.
- The revised version will focus on being technical guidance.
- Policy will continue to be set by ministers.

Sprinklers will continue to be installed in schools



Primary Schools?





Edward the Elder



1 FE primary school



Special schools?



Hallmoor all-through special school



Business continuity?

