

BS 9991:2011 - Fire Safety in the Design, Management and Use of Residential Buildings

The most recent design guide aims to complement BS 9999, which excludes individual dwelling houses from within its scope. BS 9991 maintains the design flexibility shown in BS 9999 and recognises the strength that sprinklers can bring. Importantly watermist systems get conditional approval providing (subject to AHJ agreement).

Dwelling houses with one or more storey greater than 4.5m in height (three storeys)

6.3(c) Open plan arrangements on the ground floor can be achieved on condition that sprinklers are installed throughout the property in addition to a fire rated partition and door at first floor level.

Dwelling houses with one or more storey greater than 7.5m in height (four storeys)

6.4.(b) A second, separate protected stairwell is not required if sprinklers are fitted throughout.

Loft conversions

6.5. Open plan arrangements on the ground floor are permissible should sprinkler be installed throughout, in conjunction with a fire resisting partition and door at first floor level.

Travel distances

23.2 If sprinklers are fitted throughout a block of flats then travel distances can be doubled on common escape from 7.5m to 15m and 30m to 60m

Extra care housing

23.1 Extra care housing must be fully sprinklered.

Open Plan Layouts

9.7 Open planned flats are permissible with a fully fitted fire sprinkler system.

Masionettes with floors greater than 4.5m

9.5.2 No requirement to provide a separate means of escape if the maisonette has a protected stairwell and a fully fitted fire sprinkler system.

Vehicular Access

19.1.2 Access can be increased significantly if a sprinkler system is installed and where the arrival time for the fire service is not more than ten minutes:

- ✓ 90m for houses less than 4.5m in height.
- ✓ 75m for houses/flats not more than one floor above 4.5m.

Boundary Distance

29.4.2 Boundary distances can be reduced by 50% with a fitted fire sprinkler system.

Watermist Systems

23.1 Watermist systems can be deemed as an appropriate fire suppression solution so long as agreement can be sought with the relevant AHJ. Specific scenario testing is required as evidence to prove that the system is fit for purpose.



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