

## School Hall Capacity Guidance

### School Advice Note

Calculating the maximum number of people that can safely be accommodated in assembly spaces such as school halls is relatively straightforward but little guidance on this subject has previously been given to schools.

Schools should carry out their own fire risk assessments to include all assembly spaces.

#### **How to work out floor area and the maximum number of people**

For a completely clear floor area the maximum number is calculated based on 0.5 square metres per person. Therefore, a hall of 200 square metres would be physically capable of holding 400 people. This figure will almost always be more than a school would feel comfortable for an enjoyable event. If there are tables and chairs the number of people would need to be reduced accordingly and would be in the region of 1 to 1.5 square metres per person depending on the amount of seating and tables to be provided.

#### **Seating Layout**

For formal seating layout for a concert or play, the capacity will be limited to the number of seats. No seat should be more than seven seats away from a gangway. If temporary seating is provided, these should be secured in lengths of not fewer than four seats (and not more than 12). Each length should be fixed to the floor.

Standing and sitting in gangways, or in front of any exit should not be permitted. This includes adults standing by children.

Gangways should be adequate for the number of seats served and at least 1.05 metres wide. There should be no projections which diminish these widths.

#### **Fire Exits and Safe Evacuation**

If a room only has one exit, a maximum of 60 persons is permitted.

The following method of calculating the suitability of the fire exits is based on government guidance for rooms accommodating more than 60 people. At least two exits will be required, and these exits should be remote from one another.

Assume that the largest exit will not be available for escape because of the fire. The escape capacity of the remaining exit(s) is based on a stream of people taking up 0.5 metres width and escaping at the rate of 40 people per minute. A total evacuation time of 2½ minutes is assumed. Using the above criteria, exits will be capable of evacuating people as follows:

100 people for a standard doorway of 750 millimetres in clear width (one stream of people moving at 40 persons per minute over 2 ½ minutes)

200 people for a doorway 1 metre in clear width (two streams of people each moving at 40 persons per minute over 2 ½ minute)

300 people for a doorway 1.5 metres in clear width (three streams of people each moving at 40 persons per minute over 2 ½ minutes).

Therefore, if a school hall has three exits, one of 1.5 metres width and the other two 750 millimetres in width each, the maximum number that could safely be accommodated is 200. This is calculated by ignoring the largest exit (assuming it will be blocked by a fire) this leaves the remaining two exits taking 100 persons each.

Note: The above calculation assumes that the exits are provided with outward opening doors, have single release device such as a panic latch, panic bolt or push pad, have suitable fire exit signs and the escape routes are illuminated with emergency lighting.

When calculating the maximum number of persons for the hall, consider not just the exits out of the hall but also the routes that people would be taking, if an exit out of the hallway is 1.5 metres in width, but along the escape route the next door width is only 750mm, that is the measurement you use within your calculation.

### Additional Guidance (Building Bulletin 7)

| No of exits | Minimum clear width | Maximum no of occupants |
|-------------|---------------------|-------------------------|
| 1           | 800-1000mm          | 60                      |
| 2           | 800-1000mm each     | 100                     |
| 3           | 800-1000mm each     | 200                     |
| 4           | 800-1000mm each     | 300                     |
| 2           | 1200mm each         | 213                     |
| 2           | 1500mm each         | 273                     |
| 2           | 1800mm each         | 327                     |
| 2           | 2100mm each         | 387                     |
| 3           | 1200mm each         | 426                     |
| 3           | 1500mm each         | 546                     |
| 4           | 1200mm each         | 639                     |
| 3           | 1800mm each         | 654                     |
| 3           | 2100mm each         | 774                     |
| 4           | 1500mm each         | 819                     |
| 5           | 1200mm each         | 852                     |
| 4           | 1800mm each         | 981                     |
| 6           | 1200mm each         | 1065                    |
| 5           | 1500mm each         | 1092                    |
| 4           | 2100mm each         | 1161                    |
| 5           | 1800mm each         | 1308                    |
| 5           | 2100mm each         | 1548                    |

Consider:

- Occupants; their age, capability
- The activities being carried out
- Additional furnishings
- Familiarity with the environment

If you have any queries on your hall capacity, please contact the Corporate Health and Safety Service on 023 8083 4271.