Scheme for Certification of Design (Building Structures)



Certification Practice Note 2

Guidance on the certification of the structural design of timber staircases and associated guarding in houses

1.0. Background

- 1.1. The Building (Scotland) Regulations 2004 require in Mandatory Standard 1.1 that the building is designed so that the loadings that are liable to act on it will not lead to:
 - a) the collapse of the whole or part of the building
 - b) deformations which would make the building unfit for its intended use, unsafe, or cause damage to other parts of the building or to fittings or to installed equipment, or
 - c) impairment of the stability of any part of another building.
- 1.2. It is also important to note that references to "building" in the legislation include references to part of a building. It is for this reason that Certifiers must consider whether or not parts of the building, such as staircases and associated guarding, meet the above requirements.

2.0. General Guidance

- 2.1. A staircase is usually defined as comprising steps, treads, risers, stringers, landings and guarding.
- 2.2. Guarding, in the form of either a solid wall or balustrading, is usually provided along the full length of the staircase and at landings to prevent falls.
- 2.3. Stairs may be straight or curved or may consist of two or more straight pieces connected at angles. A landing may be provided at a change of direction or as a break in a continuous flight.
- 2.4. Staircases will be manufactured by a wide variety of different companies from large multinational businesses to small local joiners.
- 2.5. It is important the Certifiers take a proportionate approach to the certification of the design of staircases in houses, based on a risk assessment which is to consider factors such as:
 - a) The complexity of the stair geometry
 - b) The support conditions
 - c) Whether or not the design is standard or bespoke
 - d) Whether or not the supplier is a registered member of a quality assurance scheme
 - e) The consequences of any failure of all or part of the staircase and/or its fixings and supports





- 2.6. In all cases the Certifier must be satisfied that the design meets the requirements of Mandatory Standards 1.1 and 1.2. This may be achieved by reviewing structural calculations or other justification for the design, such as BBA certificates or other recognised test certification, manufacturers literature, etc, together with drawings showing the construction of the staircase and the guarding.
- 2.7. Furthermore, as noted in other guidance, the Certifier is required under the legislation to keep records of how compliance with the building regulations was established. In all cases therefore, irrespective of the risk determined, there must be clear evidence of the risk assessment within the certification records.

3.0. Simplified approach for low-risk settings

- 3.1. Having undertaken the appropriate risk appraisal, the Certifier may decide that the staircase and guarding is of low-risk, in which case a simplified approach to certification may be adopted, where it will be sufficient for the Certifier to review the general arrangement drawings and specification for the staircase and guarding which will be part of the warrant submission. The specification, which may be on the drawings or in a separate document referenced from the drawings, is to clearly state the following:
 - a) the British Standards to which the staircase and guarding are to be designed and manufactured. Alternatively, it can refer to industry-recognised details for the manufacture of staircases and guarding.
 - b) that the staircase and guarding are to be manufactured by firms who hold a current BBA certificate or other recognised test certification or who are registered with a recognised industry body/quality assurance scheme (e.g., British Woodworking Federation (BWF) Stair Scheme) and installed in accordance with their recommendations.
 - c) the information that is to be made available on completion of the building to demonstrate compliance with the structural requirements of the Building Regulations.
- 3.2. In addition, if adopting the simplified approach, Certifiers should be satisfied that the size and type of staircase and guarding shown on the warrant drawings is a standard product of proven performance. Evidence of this should form part of the project records.
- 4.0. Guarding to stair landings and to the edges of upper floors
 - 4.1. Any guarding which extends from the top-most newel post along the edge of an upper floor or that protects the outer edge of the staircase at a change of direction e.g., at a landing, should NOT normally be considered as 'low risk' and should NOT be certified using the simplified approach described above.

5.0. Certification Performance Criteria

5.1. Certifiers should also refer to the Certification Performance Criteria, which can be found on the SER website.

