Scheme for Certification of Design (Building Structures)



Certification Performance Criteria Guidance

B1.4 Use of Third Party Designed Details Option

Revision D

Performance Criteria

Certifiers shall only use Schedule 1 as described in guidance published by BSD and SER.

Certifiers shall advise, or shall confirm that the Approved Body has advised, the Client and/or any Agent acting on behalf of the Client of the implications of using Schedule 1 prior to commencing the certification of the project.

Background

The building standards system in Scotland is pre-emptive, designed to check that the proposed building work meets the standards set down by Scottish Ministers. The Scheme for Certification of Design (Building Structures) enables Approved Certifiers of Design (Building Structures) to certify that the design for the building work complies with Standards 1.1 and 1.2. The design must therefore be complete before the design can be certified.

On many construction projects the design and detailing of certain building components is undertaken by a specialist supplier or contractor some time after the design of the principal elements of structure has been completed. Examples of components which fall into this group include manufactured timber roof trusses, steelwork connections, piling, elements of the external envelope, balustrades, etc.

The legislation allows a building warrant application to be progressed in 'stages' to allow work to start before the whole design is complete. This way the applicant submits the required information to the Verifier in stages. The warrant will be granted for the whole project with a condition that work on the later stages does not commence until the required information has been submitted and an amendment to the warrant has been granted.

There is also a separate procedure which permits the certification of the design of certain building elements, the final design and detailing of which is normally carried out by a third party designer employed by the supplier or contractor, to be undertaken on the basis of a performance specification provided as part of the warrant application. These elements will be listed on Schedule 1 to the Certificate of Design and subsequently signed off by Form Q.



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Certification using this procedure should not be used where the warrant is staged, except in the following situations:

- i. For piling or vibro stone or concrete columns, where they form part of the stage which includes the associated foundations
- ii. For steelwork connections where they form part of the stage which includes the associated steelwork
- iii. On multi-plot housing developments where the stages are used solely to define individual plots or groups of plots
- iv. In unusual situations where it has been agreed with the Verifier that the use of the procedure is appropriate. In these situations, the Certifier must keep a record of the reasons for using the procedure and of the dialogue with the Verifier

Guidance

Schedule 1

The elements to which this procedure applies are listed below:

| Building risk group | Schedule 1 may be used for: |
|---------------------|--|
| RG1A / RG1B | Piling Vibro stone or concrete columns Precast foundation systems Precast concrete floor units Precast concrete stairs |
| | Timber roof trusses Steelwork connections Protective barriers Glazing |
| RG2A / RG2B | Piling Vibro stone or concrete columns Precast foundation systems Precast concrete floor units Precast concrete stairs Timber roof trusses Steelwork connections |
| RG3 | Not applicable |



As noted above, it is the final design of the items on Schedule 1 that is to be carried out after the warrant submission has been made. The designs must be sufficiently advanced at the point of certification for the warrant drawings to show the design intent and for compatibility with other elements to be demonstrated. The warrant drawings must include a reasonable level of information and detail. *Procedural Guidance on Certification* published by Scottish Government and available from their website gives more advice on the level of information to be provided.

The design shown on the warrant drawings should be substantiated by preliminary design calculations or other justification, such as load span tables, test certification, etc. Where it is not possible to provide the required level of information the elements in question should be included in a later stage.

Where an item is certified using this procedure it should still be included on Schedule 2 to the certificate of design. The certification option that should be selected should be that appropriate to the certification of the preliminary design shown on the warrant drawings and the accompanying performance specification. It should NOT be that likely to be used when the finalised design is reviewed prior to signing Form Q.

If the final design for an element has been received from a third-party designer and checked prior to certification then it should NOT be included on Schedule 1; rather it should be certified in the normal way.

Performance Specification

The warrant submission must contain a detailed performance specification for each of the items listed on Schedule 1. It is likely that some, if not all, of the following information will be required:

- The specific design standard(s) to which the item is to be designed e.g. reference to a particular Eurocode or British Standard
- The loads for which the item is to be designed, or sufficient information to enable the designer to evaluate the required loads
- The building risk group e.g. RG1A, RG1B, RG2A, RG2B, RG3 and the checking regime which is to be applied. Guidance Notes 11 and 12 give more detail in this respect
- The risk group from the guidance to Standard 1.2 in the Technical Handbook that is to be used for the purposes of determining the requirements for disproportionate collapse
- Any serviceability criteria e.g. deflection or vibration limits
- Any durability requirements e.g. exposure condition
- Any fire performance criteria e.g. minimum period of fire resistance, where relevant
- Any special requirements e.g. minimum or maximum member size; minimum material specification, in-situ or other testing
- Information that is to be supplied to the Certifier (e.g. design calculations; drawings; materials specification; details of connections to the supporting structure; details of loads that will be applied to the supporting structure)



Form Q

Where there are items on Schedule 1 a Notice of Finalisation of Design Details, Form Q, will need to be submitted with the Completion Certificate.

At the appropriate time, the Certifier should be provided with finalised design information from the third party designer that should demonstrate compliance with the performance specification.

If the Approved Certifier agrees that compliance with the performance specification has been demonstrated then Form Q will be signed by the Approved Certifier and by the Approved Body and submitted to the applicant, their agent or to the Verifier as appropriate.

If the design differs from the performance specification then the Approved Certifier should not sign Form Q.

If the design does not comply with the performance specification but does satisfy the requirements of the regulations then the Approved Certifier should advise the applicant or their agent that an application for amendment to the Building Warrant is likely to be required by the Verifier for the changes.

An 'Interim' Form Q may be generated at any time for any item(s) on Schedule 1 and issued to the Verifier to demonstrate that the design of the element has been finalised and complies with the performance specification. The Construction Compliance Notification Plan issued by the Verifier may require this to be submitted before construction of the relevant item commences.

Form Qs and Interim Form Qs are generated by the Approved Certifier of Design by logging on to their area on the SER website.

Clients should be advised that some items are subject to final design by a third party and the need for them to timeously provide details of their design for the Approved Certifier to consider before an Interim Form Q/Form Q can be issued.

If details are not considered prior to the commencement of construction significant issues will arise if the Approved Certifier is unhappy with any aspect of the supplier's design. Furthermore, delays to the completion and occupation of the building may result. The Verifier will not accept the Completion Certificate unless they have a final Form Q confirming that all items on Schedule 1 that are still applicable have been signed off.

It is important that the Approved Certifier adopts a proactive approach to ensure that the Client/Architect/Main Contractor/Suppliers are aware of the level of information to be provided and the associated timescales for review to minimise delays from late issue of information, or unsatisfactory designs.



Examples of Major Non-Conformances

Using the option in a manner clearly contrary to the intent described in published guidance.

Examples of Improvement Issues

Failure to advise or to confirm that that Approved Body has advised the Client and/or any Agent acting on behalf of the Client of the implications of using Schedule 1 prior to commencing the certification of the project.

Failure to issue an interim Form Q at the appropriate time for any element on Schedule 1 the design for which had been finalised, reviewed and met the requirements of the performance specification, except where there are documented reasons for not having done so.

Failure to sign and issue Form Q prior to completion of project when the designs for all of the elements on Schedule 1 had been finalised and reviewed and met the requirements of the appropriate performance specifications, except where there are documented reasons for not having done so.

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