



Technical Bulletin 1 – Revision B

Procedure for the Submission of Structural Design Information

Introduction

Before building work can commence on site a building application must be made to the Growth, Housing and Environment Department (GHE) and a building permit issued. To obtain a building permit plans and details showing that the proposed design will comply with all relevant requirements in the second schedule to the Bye-laws needs to be provided to the GHE Department. For the purposes of the structural requirements of the Bye-laws listed in Part 1 to the second schedule this means certifying the design of all structural elements with a certificate of design (building structures) which states that the structural design complies with the relevant requirements of the Bye-laws.

It is however recognised that in some instances obtaining a building permit can be a precondition of funding being made available to enable the award of specialist sub-contracts, and that this invariably results in building applications being submitted before the structural design is complete, or indeed, before a project structural engineer may have been formally appointed.

In such cases, a building application will be determined on the basis of a series of performance statements relating to the structural design (see the GHE template for building specifications) and a building permit issued subject to condition that detailed design information is certified prior to commencement of work on site.

The purpose of this Technical Bulletin is to provide Approved Certifiers with options for discharging their responsibilities for certification while still accommodating the needs of their clients for flexibility in the design and construction of the building.

Requirements of the Legislation

A building permit must be granted if the GHE Department is satisfied that nothing in any plan, specification or other information submitted with the application indicates that the building when constructed will fail to comply with the Bye-laws. The minimum level of information that must be included with an application for a building permit is set out in the GHE templates for building applications and with regard to the structural design guidance is given in Part 1 of those templates. In cases where the structural design for a building has not been completed at the time the building application is made this document calls for general performance statements to be

given, together with outline proposals for the main structural elements and a statement that the completed design will be certified before works commence on site.

The responsibilities of Certifiers of Design (Building Structures) are defined in Bye-law 12 and these include a requirement to certify that all structural design complies with all relevant requirements in Part 1 of the second schedule. This includes all elements of the structure including details and components designed by specialist contractors.

In order for the GHE Department to undertake site inspections for construction compliance, and for it to maintain its register of building applications, it is the responsibility of the Certifier to provide sufficient information of the design to the GHE Department with each certificate issued. Design certificates must be issued to discharge a condition attached to a permit that relates to the structural design of the building. This means providing at least one copy of all design and reinforcement drawings and calculations which have been checked for the purposes of issuing the design certificate, and in relation to any foundation design must include a statement with regard to the assumed bearing capacity and type of ground conditions for the site.

Conditional Approvals

Conditional approvals enable an application to be made for a building permit before the structural design is finalised, and thus gives the applicant more time to coordinate the structural design. They also enable an earlier site start by allowing design certificates to be issued for those elements of the building which are to be constructed first. A design certificate for piling and substructure for example may be lodged as soon as those elements have been certified and work may commence on those elements very quickly thereafter.

The Approved Certifier must certify the design for the whole project but can choose to do this in one or more stages. Where certificates are issued for separate stages of the design, the latest certificate covers the work certified in all stages up to that point. It is the responsibility of a Certifier to make sure that a design certified for a particular stage is also consistent with the design of any previously certified stages. Normally, one Certifier will sign all of the certificates submitted for a particular project, but in situations where this is found not to be possible the procedure set out in the scheme guide needs to be followed. Work on subsequent stages must not commence on site until design certificates for these have been submitted to the GHE Department and acceptance is acknowledged.

The choice of appropriate stages for certification is a matter for agreement between the Certifier and the GHE Department. However, design certificate(s) must be provided for all structural elements that are shown on the building permit plans, before work on those elements commences on site. Approved Certifiers cannot limit or qualify the scope of work covered by their certificate which must relate to all structural design covered by the Building Permit.

Standard components or details will frequently be designed by a specialist contractor who has not been chosen at the time when the Building Permit application is lodged. Typical components which may fall into this group are manufactured timber roof trusses, steelwork connections or piling. Other key structural components may be chosen on the basis of information presented in **manufacturer's catalogues or test certification**; however these also may not be specified at the time the building application has been lodged. Precast floor units or anchor fixings can also fall into this category. These details often have a vital role in ensuring the integrity and performance of the structure and without question fall within the scope of the structural certification process.

¹The procedure set out below provides a methodology to enable the Certifier to retain control over the development of design details through integration with the general building permit process.

If the structural design is complete and a design certificate to cover all aspects of the structural design is lodged along with the Building Permit Application the GHE Department will be able to issue a full building Permit and work may proceed. In all other circumstances the staged procedure must be used as are set out in the following table:

Procedure		Note
Step 1	Building Permit Application lodged	If a Certifier not appointed, or if any aspects of the design or details are to be certified at a later date, a statement must be given in the general building specification accompanying the building application, describing those details, and the performance to be achieved.
Step 2	GHE issues Building Permit.	A condition requiring certification of those aspects of the design yet to be certified will be attached to the building permit.
Step 3	Client appoints contractor	Work described on building permit that does not require certification or for a stage that has already been certified can commence on site.
Step 4	Client/client's agent supplies project Certifier with structural design detail(s) produced by others.	Certifier checks any design/or details not previously available with the performance specification in the permit application and/or the Bye-laws and for consistency with the overall structural design.
Step 5	Project Certifier approves design and returns signed certificate of design and one copy of all plans and calculations checked for the purposes of certification to the GHE Department.	Certificate of design also needs to be signed by the Approved Body. Certifiers should retain a copy of the signed certificate for audit purposes.
Step 6	GHE	Acknowledges acceptance of certificate of design and confirms conditions have been discharged

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¹ : *'Detailing must be seen as an integral and important part of design; it is a matter of which the designer cannot lose control'* Aims of Structural Design: IStructE August 1969