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PROTOCOL FOR STRUCTURAL SOFTWARE

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The 2012 amendments to the BCA introduce a new reference document called, ABCB "Protocol for Structural Software".

This protocol relates to any design software used by non-engineers to produce documentation and submissions for building approval.

Naturally, truss software and frame component design software are amongst those that fall into this category.

BACKGROUND

The Protocol is based on the 2007 ABCB *"Model Handbook for the Use of Structural Software for Building Design Approval"*, which was produced at that time to address some concerns about industry practice.

In its preface, the Handbook recognises that software itself is not usually the issue but rather inappropriate or incorrect use and inadequate communication of requirements to the following trades.

Although the Handbook is non-mandatory, MiTek and other connector plate manufacturers have voluntarily ensured their truss software fully meets its requirements.

The Handbook is particularly well known to South Australian fabricators where the authorities have required compliance for some time.

But with its transformation into a mandatory Protocol this year, fabricators in all other states should now become just as familiar with it.

The benefit of compliance with this Protocol is that software output may then be considered as acceptable evidence of suitability under the BCA without further proof, calculations or certification.

It also ensures the highest standards and deterrence to sub-standard or out-of-date practice.

REQUIREMENTS

To comply, the software must be based on the provisions of the BCA and its referenced documents and standards.

Its development process must also be governed by a quality assurance program that includes software testing.

The QA program must in turn be verified by an independent organisation.

The software provider also has to provide ample evidence to demonstrate how it satisfies the Protocol in a detailed "Compliance Document", which has to be vetted by another independent expert to certify that its contents meet all requirements.

SOFTWARE FEATURES

Software input has to be limited to what is appropriate to the expected ability of the user and should not allow any of its engineering requirements to be over-ridden.

All essential information in data input must be identifiable in its documentation so that the design output can be checked against job requirements.

In addition to this, the output must also declare compliance with the latest edition of the BCA and include the name of the detailer who produces the design. As a user, the detailer has to meet certain requirements.

USER OBLIGATION

It is important for the user to fully understand the limitations of the software package and to stay within it.

A user also has to keep up to date with training in the latest version of software before they can sign off on its output.

The authority is entitled to request proof of training by way of a training certificate or a listing of all trained persons by the software training organization to be made available on request, such as on a website.

Any specific requirements not shown in the output or printed installation instructions included in the documentation must also be provided by the user to the builder.

Examples of this include any specially engineered connection or bracing system, such as wind trusses.

Although most fabricators have to make some adjustments to comply with the Protocol, it should benefit the industry to have structural software that meet a clear standard, a level playing field for all designers in having to use the latest BCA compliant software and an improvement in communication between fabricator and builder.

Readers are advised to download a free copy of the Protocol from the "Archived Documents" tab in the website location.

For more information, please contact your software provider. TTN