



BUILDING ADVISORY SERVICES BRANCH

BUILDING NOTE

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ADVICE ON THE USE OF LOADING STANDARDS BCA AMENDMENT NO. 12

The purpose of this Building Note is to provide practitioners with advice on changed references to the loading standards in Amendment No. 12 to the Building Code of Australia (BCA). Amendment No. 12 is scheduled for commencement on 1 January 2003.

Background

Prior to Amendment No. 11, the BCA referenced the AS 1170 series of Australian Standards as Deemed-to-Satisfy Provisions for the determination of loads on buildings and structures. Standards Australia Committee BD-006 undertook a review of the AS 1170 series and has produced the following parts as joint Australian/New Zealand 2002 editions:

AS/NZS 1170.0 - Structural design actions - General principles

AS/NZS 1170.1 - Structural design actions - Permanent, imposed and other actions

AS/NZS 1170.2 - Structural design actions - Wind actions

Parts 3 (snow loads) and 4 (earthquake loads) of the series are still in the course of revision at this time.

As part of the exercise of relocating public policy matters from Standards into the BCA, from 1 July 2002, the 2002 editions of AS/NZS 1170 Parts 0, 1 and 2 were referenced in the BCA (Amendment No. 11) to replace the 1989 editions of AS 1170 Parts 1 and 2 in the Deemed-to-Satisfy Provisions.

Current Situation

Since the publication of BCA Amendment No. 11, feedback from industry suggests that the technical differences between the two series of standards had a greater impact on design and construction issues than originally anticipated. The feedback indicated that a transition period, during which the 1989 editions could be used as an alternative to the 2002 editions, was needed.

Deliberations between the ABCB, States, Territories and industry has resulted in the reintroduction of the 1989 editions with BCA Amendment No. 12 as an alternative to the 2002 editions. Consequentially, deleted clauses of the relevant parts of the BCA have been reintroduced and new clauses inserted to explain the alternative design options.

BCA Amendment No. 12

Accordingly, with the introduction of Amendment No. 12, B1.0 of Volume One of the BCA will state:

B1.0 Deemed-to-Satisfy Provisions

Performance Requirement BP1.1 and BP1.2 are satisfied by complying with either-

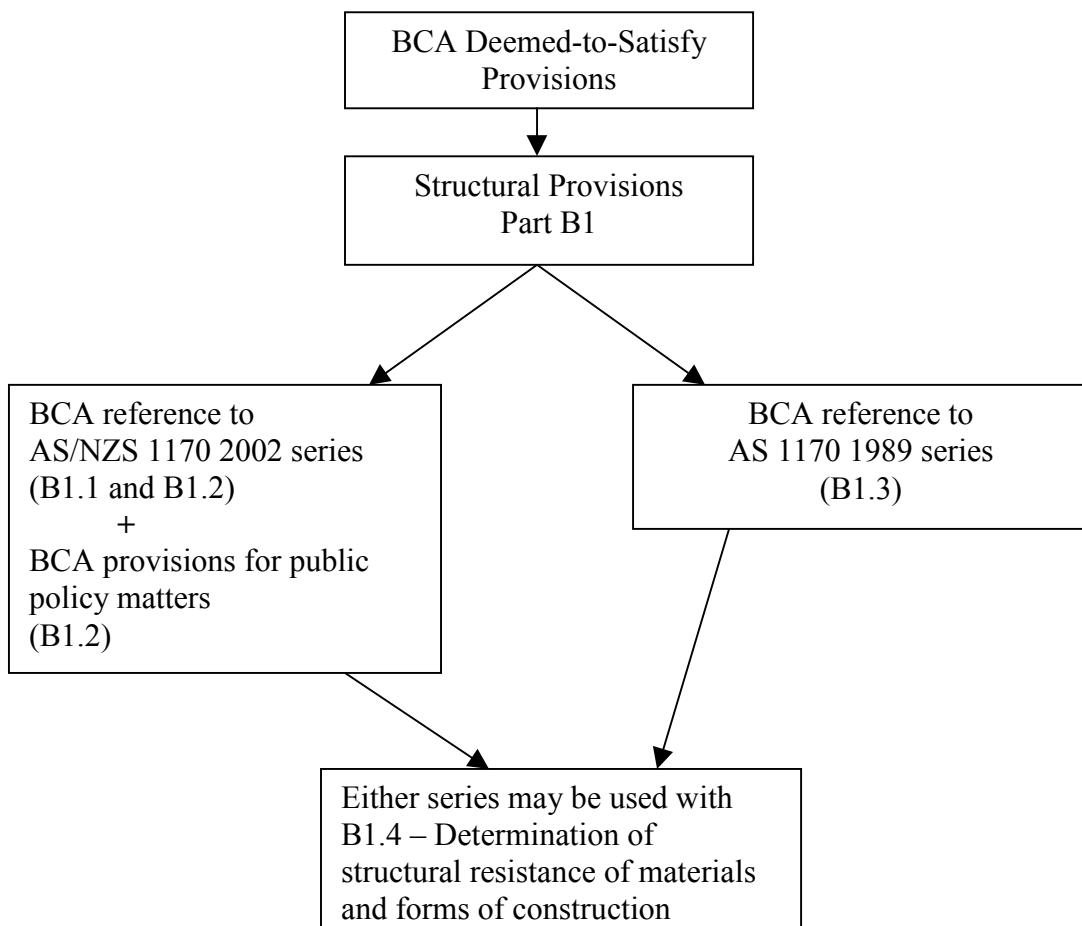
- (a) B1.1, B1.2 and B1.4; or
- (b) B1.3 and B1.4.

In addition, as part of Amendment No. 12, it has been necessary to re-number the existing B1.3, dealing with the determination of structural resistance of materials and forms of construction, to B1.4. This allows the insertion of a new B1.3 which references the 1989 editions of the AS 1170 series of standards as per the BCA prior to the introduction of Amendment No. 11.

The overall result is the BCA will allow two difference methods of compliance through the documents it references. The first method of compliance (as set out in B1.0(a) above) allows the use of the 2002 editions of AS/NZS 1170 Parts 0, 1 and 2, whereas the second method of compliance (as set out in B1.0(b) above) allows the use of the 1989 editions of AS 1170 Parts 1 and 2.

It is not acceptable to use a combination of these two methods of compliance.

Diagrammatically, the choices can be explained as follows:



Similar amendments have also been made to Part 3.11 of the Housing Provisions (Volume Two) of the BCA. (It should be noted that Part 3.11 also allows the use of the relevant provisions of other Parts of Section 3).

Use of AS 1720.1

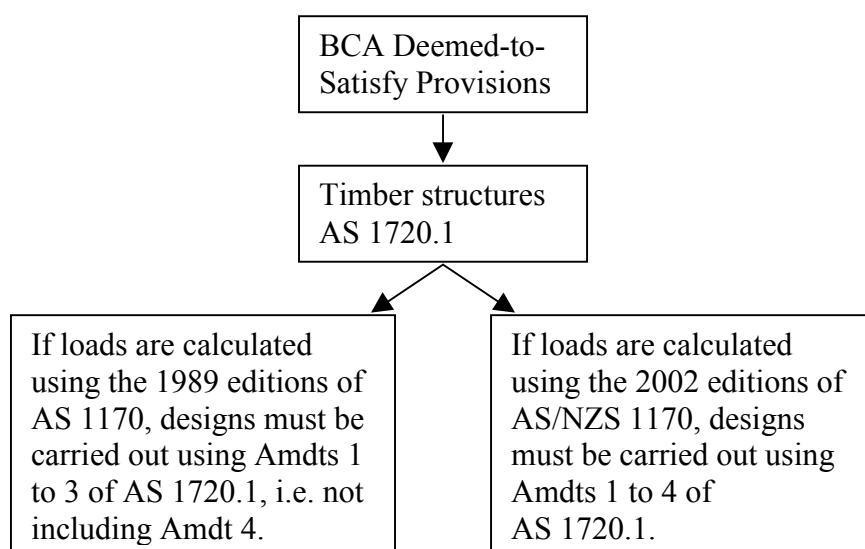
AS 1720.1 - Timber structures - Design methods, is reference in the Deemed-to-Satisfy Provisions as an alternative to AS 1684 for the design of timber structures. Standards Australia Committee TM-001 have introduced Amendment No. 4 to AS 1720.1. However, this amendment is only suitable for use with the 2002 editions of AS/NZS 1170 Parts 0, 1 and 2. Its use with the 1989 editions of AS 1170 Parts 1 and 2 could lead to under-sized timber members in some cases.

It is therefore important that if AS 1720.1 is being used in conjunction with the 1989 editions of AS 1170 Parts 1 and 2, Amendment No. 4 to AS 1720.1 is not included in any design. Accordingly, with the introduction of Amendment No. 12, the reference to AS 1720.1 in Table 1 of Volume One of the BCA includes the following note.

If AS 1720.1 is being used in conjunction with AS/NZS 1170.0, AS/NZS 1170.1 and AS/NZS 1170.2, it must include Amdts 1 to 4.

If AS 1720.1 is being used in conjunction with AS 1170.1 and AS 1170.2, it must only include Amdts 1 to 3.

Diagrammatically, this change can be explained as follows:



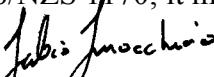
Similar amendments have also been made to Part 3.11 of the Housing Provisions (Volume Two) of the BCA.

Conclusion

Both Volumes of the BCA have been amended to allow the use of either:

- the 1989 editions of AS 1170 Parts 1 and 2; or
- the 2002 editions of AS/NZS 1170 Parts 0, 1 and 2.

Both Volumes of the BCA have been amended to reference Amendment No. 4 to AS 1720.1. However, the amendment may only be used in conjunction with the 2002 editions of AS/NZS 1170; it may not be used in conjunction with the 1989 editions of AS 1170.


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